# CITY OF FAIRFAX EROSION AND SEDIMENT CONTROL INFORMATION PACKAGE



#### TO THE APPLICANT:

An Erosion and Sediment Control (E&S) Plan is required for land disturbing activities exceeding 2,500 square feet in the City of Fairfax. Land disturbing activity means any land change which may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands in the Commonwealth, including, but not limited to, clearing, grading, excavating, transporting and filling of land. This plan may be used in conjunction with a site, subdivision, plan of development or may be submitted alone for single lot residential construction and improvements.

The E&S plan review process is initiated after the applicant has attended a mandatory meeting with City Staff and by the applicant's submission of the application package, plans and review fee. Ten (10) copies of the plan and a "pdf" version are required for City review. The submitted E&S plan is reviewed by City staff for Code compliance. Staff will provide a written comment letter for corrections by the applicant and/or engineer within 30 days.

For resubmission of the plan, a comment response letter must be stapled to each copy of the corrected plan and ten (10) copies of the plan and a "pdf" version provided to the City for second review. If the plan meets Code compliance, the Erosion and Sediment Control Plan will be approved by signature of the Director of Public Works. This second and any subsequent review cycles can take up to 15 additional days. There are no resubmission fees for subsequent reviews.

A conservation deposit (bond) is required along with a completed City of Fairfax Siltation Agreement prior to release of the approved E&S plan. Once the bond is approved by the City, the approved plan will be released to the applicant with issuance of a Grading Permit. At this time the building permit application should be approved by signature of the Zoning Staff.

Upon satisfactory completion of construction, a Residential Use Permit or Non-Residential Use Permit may be obtained. Bonds will be released after an as-built plan and a warranty bond are submitted, reviewed, and approved. The warranty bond will be released after passing final site inspection pending completion of the bond release process including the final site inspection of all warranty improvements.

The attached explanatory materials regarding the Erosion and Sediment Control Plan review process will assist in preparation of your plan. If you have questions pertaining to the process, please contact the Zoning Office 385-7820. If you have specific technical questions pertaining to the proposed grading and/or Erosion and Sediment (E&S) controls, please contact the City Engineer, 703-385-7810.

Sincerely,

Michelle Coleman
Deputy Director/Zoning Administrator

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## **IMPORTANT PHONE NUMBERS ALL AREA CODE (703)**

City Utilities	385-7920
Facilities Inspector	385-7828
Fire Marshal/Building Official	385-7830
Health Department	246-2541
Planning Director	385-7930
Public Works Director	385-7810
Street Superintendent	385-7893
Zoning Administrator	385-7820
Architectural Review	385-7930

**PLEASE NOTE:** Failure to obtain City approval for changes to an approved Site Plan or to install improvements and facilities according to the City approved plan **could result in civil penalty fines and other legal remedies** available to the City.

#### **FEES:**

## **Erosion & Sediment Plan Review (#313310)**

Base fee of \$550.00 up to ½ acre of disturbed land, Acre:	Fee:\$
includes 1 site inspection; each additional inspection is \$100.00	
Base fee of \$550.00 plus \$100.00 per acre or fraction thereof, Acres:	Fee:\$
Includes 1 inspection, each additional inspection is \$100.00	
Reinspection following violation @ \$200.00; \$300. if a stop work order	has been issued (per inspection)
After-Hours Inspection fee @\$200.00 minimum up to 4 hours	
Overtime Related to Inspections @ 150.00	
Rescheduling fee for site inspection \$45.00	
RPA delineation/determination \$275.00	

## APPLICANT'S GUIDE FOR EROSION AND SEDIMENT CONTROL REVIEW PROCESS AND CONSTRUCTION

Submit all applications and bonding documents to:

City of Fairfax

City Hall Annex, Room 207

Department of Community Development and Planning

Zoning Division

10455 Armstrong Street

Fairfax, VA 22030

#### STAGE I PRE-SUBMISSION CONTACT

\* All applicants must contact the Division Chief for Land Use Planning at 703.385.7930 prior to submission of the site plan application and plans to discuss the land development proposal. The pre-submission contact will result in the assignment of a Project Planner to serve as the point of contact throughout the review process. **Projects are not accepted for review without the pre-submission contact.** 

#### STAGE II APPLICATION SUBMISSION

- \* Applications for E&S review that contain the following items are acceptable for Intake Processing:
  - A. E&S Application
  - B. Property Owner Affidavit (printed on cover page of plan set)
  - C. E&S Checklist (printed on cover page of plan set)
  - D. Water Quality Impact Assessment & Waiver Application
  - E. Tree Removal Application
  - F. Plans (every submission 10 paper copies **and** "pdf" electronic format)
  - G. GIS "dxf" electronic format at final submission
- \* Where applicable, any Special Exception, Variance and Special Use Permit approvals by City Council or the Board of Zoning Appeals must be obtained prior to site plan submission. The specific application requirements, forms and fees for these approvals are available from the City's website <a href="www.fairfaxva.gov">www.fairfaxva.gov</a> or Zoning Division staff.

#### STAGE III EROSION AND SEDIMENT REVIEW

\* E&S plans are circulated to the plan review staff in the following City departments: Public Works, Utilities, Building Code/Fire Marshal, and any other department that may need to provide staff review comments.

- \* Review comments are compiled by the Project Planner and sent to the applicant's representative for consideration. The applicant's response (in letter format to the Project Planner) to staff's comments must accompany all plan revisions.
- \* Architectural review and approval for building designs, landscaping and screening for all zoning districts except (single-family residences outside of the Old Town Fairfax Historic District and Transition District) and certain signage must be approved by the Board of Architectural Review.
- \* Building construction plans may be <u>submitted</u> to the Office of Building and Fire Code Administration for review and consultation with the Plan Review prior to plan approval. **Applications for building permits will not receive Zoning compliance review and endorsement until the final plan approval is obtained.**
- \* Subdivisions (if proposed) may require preliminary and final subdivision plats to be approved by the Planning Commission or Director of Public Works. The specific application requirements, forms and fees for these approvals are available from the City's website www.fairfaxva.gov or Zoning Division staff.
- \* E&S plans (residential w/o site plan) will receive an approval signature by the Director of Public Works after the required siltation agreement and conservation deposit has been accepted, reviewed and approved. Applications for all other required permits, approvals and/or agreements (ie grading permit, tree removal permit, floodplain permit and stormwater detention/best management practice agreement) and any associated fees will be accepted for processing after submission of the final response to staff comments and upon receiving the Bond Submission package requirements.
- \* E&S plans (commercial w/ site plan) will receive all approval signatures after the required surety bond or letter of credit, site agreement, and siltation agreement and conservation deposit has been accepted, reviewed and approved. Applications for all other required permits, approvals and/or agreements (ie grading permit, tree removal permit, floodplain permit and stormwater detention/best management practice agreement) and any associated fees will be accepted for processing after submission of the final plan revisions and upon satisfying the Bond Submission package requirements.
- \* Documents (i.e. bond and site agreements, grading permit, tree removal permit, stormwater detention/best management practice agreement, siltation agreements and conservation bond and all associated fees) will be circulated for review and approval by appropriate authorities when all requirements are met.
- \* The approved plan will be released to the applicant once the plan has been submitted in a "dxf" format for the City's GIS update. (Additional information regarding "dxf" format is available from the City's GIS Analyst, 703.246.6331 and is the last page of this document.)

\* Building permits may be <u>issued</u> by the Office of Building and Fire Code Administration and street opening permits may be issued by the Department of Public Works **after the final E&S/site plan is approved**.

#### STAGE IV CONSTRUCTION

- \* A pre-construction meeting is required before ANY activity takes place on site. It is recommended that a preconstruction meeting be scheduled at least one (1) week in advance of planned start of any site activity. To schedule a pre-construction meeting, contact the Facilities Inspectors at 703.385.7828. Failure to schedule a pre-construction meeting prior to site activity will result in a Stop Work Order by the Facilities Inspector and/or Building Code Inspector.
- \* Written notices providing information to residents in the affected area (in most cases, one block from the construction activity) must be delivered one week before the beginning of construction activity and three days prior to any disturbance of utilities. The Facilities Inspector must be copied on all notices and a list of addresses that received notices must be provided.
- \* Following a preconstruction meeting, limited clearing is allowed for installation of erosion and sediment controls.
- \* Inspection of installed erosion and sediment controls and construction entrance is required before approval is given to begin land clearing activities.
- \* Construction noise is allowed only between the hours of 7:00 AM and 6:00 PM on weekdays and 8:30 AM and 5:00 PM on Saturday **ONLY**. No construction noise is allowed during Sunday, evening/night hours and public holidays.
- \* Work hours in the Right-of-Way are from 9:00 AM to 3:00 PM on weekdays, or as outlined in the approved ROW/Easement Permit.
- \* Right-of-Way and On-Site Construction Inspection Fees are billed at the beginning of the project. A Right-of-Way/Easement Permit is required prior to starting work in any City Right-of-Way or Easement. Each road cut requires a separate traffic control plan for the particular work zone. Payment must be received for Right-of-Way and On-Site Construction Inspection Fees before a ROW/Easement Permit will be issued.
- \* All site construction is monitored for adherence to requirements by the Facilities Inspector until the project is complete. Building construction is monitored by the Building Inspector from Code Administration.

#### STAGE V BOND ADMINISTRATION

- \* To assist in completion of the remainder of this process, a separate bonding package will be provided by the City of Fairfax Development Bond Administrator (703.385.7930).
- \* Bond reductions may be requested as the project progresses up to 80% maximum reduction of the original site bond amount. A written request for bond reduction must be submitted on company letterhead, accompanied by completed amounts as certified on the City of Fairfax Surety Value Estimate form, and associated fees paid.
- \* At the satisfactory completion of 80% of site improvements and/or within 30 days of the issuance of the permanent or temporary Certificate of Occupancy from the Office of Building and Fire Code Administration an as-built plan, formal written request (on company letterhead) for release of the site and siltation bonds and associated fees must be submitted to the City Development Bond Administrator for agency review.
- \* A temporary Residential or Non-Residential Use Permit may be issued to accommodate weather related delays for completion of **landscaping and paving only**.
- \* After approval of the as-built plan, a two-year warranty bond must be submitted for approval with the associated surety review fee. The original site and siltation bonds will then be returned to the applicant.
- \* A permanent Residential or Non-Residential Use Permit will be issued upon satisfactory compliance with all required improvements to provide safe public and emergency access.
- \* Approximately three (3) months prior to warranty bond expiration, a letter from the City Development Bond Administrator will be mailed to the applicant; however this may be initiated by the bonding agent for the developer no sooner than three (3) months prior to warranty bond expiration.
- \* The applicant will then be instructed to submit a formal request in writing (on company letterhead) for release of the warranty bond and pay the associated bond release fee. This request must be made prior to the expiration of the warranty bond.
- \* Upon satisfactory inspection by the City Public Works Department Facilities Inspector, the original warranty bond will then be returned to the applicant.

#### STAGE VI AMENDMENTS TO APPROVED SITE PLANS

- \* Changes to an approved site plan will be processed as a Site Plan Amendment.
- \* Final Design plans by **Virginia Power** for electric service must have **City Staff** authorization prior to installation.
- \* Failure to obtain City approval of any changes or to install improvements and facilities according to the City approved plan may result in civil penalty fines and other legal remedies available to the City.

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## City of Fairfax Erosion and Sediment Control Plan Checklist and Certification Statement

The following affidavit and checklist MUST E	BE PRINTED ON THE COVER PAGE and signed	d by a certified engineer, architect or land surveyor.
	Certification for Completeness and Acc	<u>uracy</u>
I do he	reby certify that this Erosion and Sediment Contro	ol Plan checklist is complete and accurate for use in
staff's evaluation of the attached Erosion and State the City of Fairfax.	Sediment Control Plan that is required pursuant to	Section 110-336 thru Section 110-347 in the Code of
(signature)	(date)	(SEAL)

## Erosion and Sediment Control Plan Checklist

All Erosion and Sediment Control Plans MUST CONTAIN THE FOLLOWING CHECKLIST INFORMATION in the order prescribed herein. If a checklist item does not apply please indicate "N/A" and explain in "Remarks" column.

## **COVER PAGE:**

Yes	No	N/A	Description	Remarks
			Engineer's name, address and phone number	
			Location map at a scale not less than 1"=2000', indicating scaled coordinates and	
			landmark information such as names of roads and water bodies.	
			Tax Map Number, Property Address, Project Name and Sheet Index	
			Seal and Signature of a professional engineer or other certified professional	
			Name and address of owner, developer and contract purchaser (if any).	
			Proposed height and maximum permitted in the district.	
			Area of parcel in square feet.	
			Disturbed area in square feet or acreage.	
			Number and type of dwelling units and allowed density (if applicable)	
			Number of parking and loading spaces required and proposed	

{\*Denotes items that are required in digital format "dxf" for purpose of updating the City's GIS data.}

## **COVER PAGE:**

Yes	No	N/A	Description	Remarks
			Land use actions granted or requested for.	
			North arrow on all plan drawings and maps	
			Scale of each drawing, map or plan	
			Date and preparation and revisions.	
			Landscaped open space required and proposed, zoning classification, use group	
			classification and type of construction(Uniform Statewide Building Code).	
			Certificate signed by the surveyor or engineer setting forth the source of title of the	
			Owner of the parcel(s) and the place of record of the last instrument in the chain of	
			Title.	
			CUMENTATION PAGE:	
Yes	No	N/A	Description	Remarks
			Documentation of approvals granted by City Council, Planning Commission,	
			Board of Zoning Appeals, Board of Architectural Review or any other agency.	
			City Standard Notes	
		~ ~~.	Demical Control of the Control of th	
			DITIONS PAGE:	
Yes	STIN( No	G CON N/A	Description	Remarks
			Description  Boundary of the entire property or properties.	Remarks
Yes	No	N/A	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot	Remarks
Yes	No	<b>N/A</b>	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.	Remarks
Yes	No	<b>N/A</b>	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.  Proof of easements required for the development.	Remarks
Yes □	No	<b>N/A</b>	Boundary of the entire property or properties. Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds. Proof of easements required for the development. Certified topographic map of the property at a two-foot contour interval, showing	Remarks
Yes	No	<b>N/A</b>	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.  Proof of easements required for the development.  Certified topographic map of the property at a two-foot contour interval, showing existing and proposed contours and delineating the 100-year floodplain elevation.	Remarks
Yes	No	<b>N/A</b>	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.  Proof of easements required for the development.  Certified topographic map of the property at a two-foot contour interval, showing existing and proposed contours and delineating the 100-year floodplain elevation.  USGS datum used for all deviations with location and elevation benchmarks.	Remarks
Yes	No	N/A	Boundary of the entire property or properties. Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds. Proof of easements required for the development. Certified topographic map of the property at a two-foot contour interval, showing existing and proposed contours and delineating the 100-year floodplain elevation. USGS datum used for all deviations with location and elevation benchmarks. Proposed elevations at control points necessary to evaluate the plan.	Remarks
Yes	No	N/A	Description  Boundary of the entire property or properties.  Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.  Proof of easements required for the development.  Certified topographic map of the property at a two-foot contour interval, showing existing and proposed contours and delineating the 100-year floodplain elevation.  USGS datum used for all deviations with location and elevation benchmarks.	Remarks

## **EXISTING CONDITIONS PAGE:**

Yes	No	N/A	Description	Remarks
	<u> </u>		Structures and their distance to property lines and center lines of adjacent streets.	
			Public streets, sidewalks, bike trails and easements on and adjacent to the site wit	
			rights-of-way, width of pavement, curbs, gutters, medians indicated, profiles,	••
			typical sections and pavement design.	
			Driveways and curb cuts on the site and adjacent properties (indicate sight	
			distances for driveways entering public streets).	
			Parking and loading spaces, related driveways, walkways, drive-aisles and	
			pavement types.	
П			Fences, retaining walls and other similar structures including elevation drawings.	
П			Stormwater management facilities including all structures (pipes, inlets, drains,	
_	_	_	grates, etc) elevations, profiles, connections to existing facilities, ground clearance	e.
			detailed design of non-standard structures, calculations for pipe capacity, detention	
			retention facilities and BMP's.	,
			Water and sanitary sewer facilities, including all structures (fire hydrants, meters,	
			manholes, etc.), sizes and types of pipes, elevations, profiles, ground clearance ar	
			connections to public utility systems. (Indicate water pressure and flow capabilit	
			static pressure, residual pressure and flow in gallons per minute)	<i>5</i> ,
			Underground and overhead electric, telephone, cable, computer, gas lines and	
			equipment.	
			Landscaping including a tree inventory with each tree's caliper size	
			labeled.	

## **EROSION AND SEDIMENT CONTROL PLAN PAGE:**

Yes	No	N/A	Description	Remarks
			* Boundary of the entire property or properties.	
			Horizontal dimensions in feet and decimal fractions of a foot to the closest .00-	
			foot and all bearings in degrees, minutes, and seconds to the nearest 10 seconds.	
			Proof of easements required for the development.	
			Certified topographic map of the property at a two-foot contour interval,	
			Showing existing and proposed contours and delineating the 100-year	
			Floodplain elevation.	
			USGS datum used for all deviations with location and elevation of benchmarks.	
			Proposed elevations at control points necessary to evaluate plan.	
			Locations and sizes of proposed:	
			* Structures and their distance to property lines and center lines	
			of adjacent streets.	
			* Public streets, sidewalks, bike trails and easements on and adjacent to	
			the site with rights-of-way, width of pavement, curbs, gutters, medians	
			indicated. Profiles, typical sections and pavement design.	
			* Driveways and curb cuts on the site and adjacent property (indicate	
			sight distances for driveways entering public streets).	
			* Parking and loading spaces, related driveways, truck turning radius, walkways,	
			drive aisles and pavement types.	
			Fences, retaining walls and other similar structures, including an	
			elevation drawing.	
			Traffic controls and truck routes.	
			Storm water management facilities including all structures (pipes,	
			inlets, drains, grates, etc.) elevations, profiles, connections to	
			existing facilities, ground clearance, detailed design of non-	
			standard structures, calculations for pipe capacity, and	
			detention or retention facilities and BMPs must be shown on the	
			Storm Water Management and Water Quality Plan pages.	

{\*Denotes items that are required in digital format "dxf" for purpose of updating the City's GIS data}

## **EROSION AND SEDIMENT CONTROL PLAN PAGE:**

Yes	No	N/A	Description	Remarks
			* Water and sanitary sewer facilities, including all structures (fire	
			hydrants, meters, manholes, etc.), sizes and types of pipes,	
			elevations, profiles, ground clearance, and connections to public	
			utility systems. Indicate water pressure and flow capability,	
			static pressure, residual pressure, and flow in gallons per minute	
			must be shown on the Utilities Plan Page (s).	
			* Underground and overhead electric, telephone, television, computer	
			gas lines and equipment.	
			Vertical cross-sectional view showing height of proposed structures,	
			number of stories, location and access to underground parking, and	
			proposed elevation of each floor, including basements.	
			Limits of clearing and grading.	
			Existing drainage patterns.	
			Critical erosion areas.	
			Locations of erosion and sediment controls and stormwater management	
			practices to be used.	
			Any off-site land-disturbing activities.	
			Detail drawings of structures to be used.	
			A schedule of regular inspections and maintenance.	
			Erosion and sediment control narrative including descriptions of:	
			Project.	
			Existing topography, vegetation and drainage.	
			Show all off-site drainage areas that flow to or from the site.	
			Neighboring areas such as streams, lakes, residential areas, roads, and	
			the like that might be affected by the land disturbance.	
			Any off-site land-disturbing activities.	
			Soils, including names, mapping unit, erodibility, permeability, depth,	
			texture and soil structure.	

{\*Denotes items that are required in digital format "dxf" for purpose of updating the City's GIS data}

## **EROSION AND SEDIMENT CONTROL PLAN PAGE:**

Yes	No	N/A	Description	Remarks
			Areas on the site that have potentially serious erosion problems.	
			` Methods which will be used to control erosion and sedimentation.	
			Specifics regarding permanent stabilization of the site.	
			Increases in stormwater runoff and strategies to control runoff.	
			Design of temporary sediment basins, permanent stormwater detention	
			basins, diversions, channels, and the like, including calculations	
			supporting proposed design and for pre- and post-development runoff.	
			Maintenance plan for E&S control.	
			List minimum E&S standards 1 through 19 and how they are met.	

## STORM WATER MANAGEMENT PAGE(S):

Yes	No	N/A	Description	Remarks
			General description of stormwater management facilities	
			Project schedule, narrative, sequence of construction	
			Adjacent property owners	
			Existing streets, buildings, etc.	
			Wooded limits	
			Wetland limits	
			Water quality buffers	
			Proposed public drainage easements shown	
			Land use of surrounding areas	
			Original contours (2-foot intervals)	
			Proposed contours (2-foot intervals) or sufficient number of spot elevations	
			Actual field survey	
			City/ USGS topographical data	
			Existing streams, lakes, etc.	
			Size and location of existing culverts	
			Size and location of proposed culverts	

**STORM WATER MANAGEMENT PAGE(S):** 

Yes	No	N/A	Description	Remarks
			Limits of drainage area	
			Limits of construction, clearing & grading	
			Existing and proposed improvements (including utilities and protective measures)	)
			Delineation of FEMA 100-yr Floodplain within 200ft of project, 100-yr BFE shown	
			Soils, including names, mapping unit, erodibility, permeability, depth, texture, and soil structure	
			Location and elevation of the lowest floor in all proposed and existing buildings adjacent to the floodplain	
			Location of Stormwater Management Facilities (includes details, plan, profile, and cross sections)	
			Maintenance plan for stormwater management facilities	
			Name and address of entity responsible for maintenance	
			Stormwater Maintenance Agreement	
Calcu	ılatio	n Requ	irements:	
Yes	No	N/A	Description	Remarks
			NOTE: Drainage structures should be designed to handle all upstream flow when the basin is fully built out	
			Capacity of receiving channel downstream of channel, pipe, or basin system	
			Total area, impervious area, CN, Tc, Qpre and, Qpost for 2/10-yr/25-yr/100-yr storms as applicable	
			Routing analysis through all detention/retention facilities	
			Design flows and velocities in open channels	
			Soils/Geotechnical Report/Analysis (for infiltration facilities, if required)	

Piped Systems:					
Yes	No	N/A			

Yes	No	N/A	Description	Remarks
			Analyzed and designed for 2/10-yr/25-yr/100-yr Storm Primary road crossings	
			designed for 25-yr flows and 10-yr under secondary roads and other locations	
			Culverts checked for the effects of 100-yr storm. No flooding of building	
			Structures shall result from 100-yr design flow	
			Energy dissipater calculations	
			Capacity of receiving channel downstream of channel or pipe system	
			Gutter spread limited to 10ft from the face of the curb	
			Hydraulic grade lines show 1ft below inlets	

**Open Channel Systems:** 

- 1	· F				
Yes	No	N/A	Description	Remarks	
			Proposed channel capacity analyzed and designed for pre 10-yr storm		
			Channel designed for 2-yr Storm without erosion and 10-yr for bank fill (liner		
			design)		
			Velocity Check (liners provided, if needed) Provide channel velocities.		
			Overlot grading plan.		
			Provide 100-yr overland relief assuming pipe system failure.		

## CHESAPEAKE BAY REGULATIONS PLAN PAGE:

Yes	No	N/A	Description	Remarks
			For any property depicted on the city's Chesapeake Bay preservation area map	
			as a resource protection area, applicant shall determine and show on the plan	
			the site-specific boundaries of the RPA components per code section 110-86(c).	
			The applicant shall also submit a RPA site-specific study application available at	
			the Planning counter or at:	
			http://www.fairfaxva.gov/cdp/docs/RPASiteSpecificStudyApplication.pdf	
			Water quality impact assessment is required for any proposed development or	
			redevelopment unless the requirement is waived by the Zoning Administrator	
			Application/waiver form is available at the Planning counter or at:	

## CHESAPEAKE BAY REGULATIONS PLAN PAGE:

Yes	No	N/A	Description	Remarks
			http://www.fairfaxva.gov/cdp/docs/WQIAApplication.pdf	
			Tree management plan per 110-86 (d).	
			BMP narrative	
			BMP maintenance notes	
			BMP maintenance agreement (available at Planning counter)	
			Copies of any required wetland permits.	
			Water quality calculations in accordance with Chapter 5 of the Virginia Storm-	
			Water Management Handbook	
			BMP checklists from Virginia SWM Handbook Chapter 3 Appendices B through	l .
			E as applicable. Checklists can be found at:	
			http://www.dcr.virginia.gov/soil_&_water/documents/Chapter_3_Appendix.pdf	
		_ :	* Total number of acres served by proposed or existing BMP	

{\*Denote items that are required in digital format for purposed of updating the City's GIS data.}

**Performance Standards of Chesapeake Bay Regulations:** 

Yes	No	N/A	Description	Remarks
			Maximize rainwater infiltration.	
			Reduce the land application of nutrients and toxics.	
			Implement measures to ensure no net increase in nonpoint source	
			pollution from new development and a ten percent reduction over	
			existing conditions from redevelopment (allowable loadings are	
			based on the city's 45 percent average land cover condition- refer	
			to Section 110-84(b)(7.)	
			Minimize erosion and sedimentation potential.	
			Limit land disturbance and preserve indigenous vegetation to the	
			maximum extent practicable, consistent with the use or development.	
			proposed.	

## **LANDSCAPING PLAN PAGE:**

Yes	No	N/A	Description	Remarks
			The following data in tabular form:	
			Tabulation of tree canopy on the site at 10-year maturity and minimum	
			required.	
			Landscape materials, including a tree management proposal, showing	
			existing and proposed vegetation with each tree's caliper size	
			labeled.	

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# PROPERTY OWNERSHIP AFFIDAVIT (To be printed on the plans and submit hard copy)

Section 107.3 of the Virginia Uniform Statewide Building Code (VUSBC) requires that all permit applications list the full name and address of the owner of the property for which a permit is being obtained. The City of Fairfax verifies property ownership prior to permit issuance. In certain circumstances, City records will reflect property ownership that is different from that appearing on a permit application. (Discrepancies most commonly occur when a company meets the definition of "owner" as found in VUSBC, but does not have title to the property or when the submission of an application occurs shortly after a transfer of ownership which has not yet been recorded in the City's real estate files.) In such cases it is the responsibility of the owner to provide evidence of property ownership prior to issuance of the permit. This affidavit provides an opportunity for individuals and companies to certify that under the definition of "owner" found in the VUSBC they are the owners of the property for which the application is being submitted. Completed affidavit forms may be submitted to the Zoning Administrator in lieu of providing other documentation such as settlement papers. This affidavit must be completed by the property owner listed on the application and must be submitted prior to permit issuance. If you have any questions, please call the Community Development and Panning 703 385-7930 prior to signing this form. Copies of signed affidavits are unacceptable.

#### (Please Print or Type)

I,	, hereby swe to the definition of "owner"	ear under oath that, to the best of found in the current edition of the	my knowledge, the VUSBC, the
Name:			
Mailing Address:			
Is the owner of the property located at such may apply for a permit as the ow	rner in accordance with secti	Lot # on 107.3 of the VUSBC.	and as
Signature		Title	Date
			Date
STATE/DISTRICT OF		:	Date
STATE/DISTRICT OFCITY/COUNTY OF		: :	
STATE/DISTRICT OF  CITY/COUNTY OF  I,  State/District hereby certify that  State/District and City/County aforesa	, a	:: Notary Public in and for the afor appeared before	resaid me in the
STATE/DISTRICT OF	, a	:: Notary Public in and for the afor appeared before	resaid me in the

City of Fairfax, Virginia

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## RESPONSIBLE LAND DISTURBER CERTIFICATION

Effective July 1, 2001

Amendments to the Virginia Erosion and Sediment Control Law, §§ 10.1-563 and §§ 10.1-566 of the Code of Virginia

Revisions to the Virginia Erosion and Sediment Control Law require, as a prerequisite to the approval of an erosion and sediment control plan, that the person responsible for carrying out the plan (owner/developer/permittee) shall provide to the plan approving authority the name of an individual holding a certificate of competence (Virginia Professional Engineer, Virginia Land Surveyor, Virginia Landscape Architect, Virginia Architect, Combined Erosion and Sediment Control Administrator, Erosion and Sediment Control Plan Reviewer, Erosion and Sediment Control Inspector, Erosion and Sediment Control Contractor, Responsible Land Disturber) issued by the Department of Conservation and Recreation (DCR) who will be responsible for carrying out the land disturbing activity. Please note that a contractor's business license issued by the State or City does not satisfy the requirement for certification from DCR; a special exam on the principles and practices of erosion and sediment control is required to obtain this certification (www.dcr.state.va.us/sw/es\_rld.htm). This information must be kept current for the life of the plan. Plans approved prior to July 1, 2001 are not subject to this requirement. The requirement is applicable to the following plan types:

Use this form to provide the responsible land disturber to the City of Fairfax prior to permit approval and whenever the individual responsible for carrying out the land disturbing activity changes during the life of the approved plan.

OWNER /DEVELOPER/PERMITTEE	E INFORMATION	
PROJECT NAME		SITE PLAN #
PROJECT ADDRESS		
TAX MAP AND PARCEL #		
OWNER/ DEVELOPER/PERMITTEE		
RESPONSIBLE LAND DISTURBER	INFORMATION	
NAME		·
ADDRESS		
PHONE #	CERTIFICATE/LICENSE #	
SIGNATURE /DATE		

RETURN TO: CITY OF FAIRFAX, COMMUNITY DEVELOPMENT & PLANNING

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# CITY OF FAIRFAX DEPARTMENT OF COMMUNITY DEVELOPMENT AND PLANNING

## Water Quality Impact Assessment (WQIA) and Waiver Application

The Water Quality Impact Assessment requirements are described on the following pages. Please review these requirements, compute your WQIA calculations (or waiver request) and complete the following application including Sections I, III, IV as applicable. The request to waive the requirement for a WQIA can be made by completing Section II.

Submit the completed application, WQIA calculations (or waiver request) and review fee along with the Erosion and Sediment application and fees to the Department of Community Development and Planning, Zoning Division.

# WQIA review fees: \$110 per individual residential lot or \$330 for other development Account #316462

Project Name:	
Project Address:	
Tax Map Number:	
Property Owner:	
Address:	
E-mail:	
Applicant (If different from Owner):	
Address:	
E-mail:	
Engineer:	
Address:	Phone:
Land Surveyor (if different):	
Address:	Phone:
Wetlands Expert (if different):	
Address:	
Danagturant of Com	

The Water Quality Impact Assessment is conducted to identify the impacts of proposed development on water quality and lands within resource protection and resource management areas; to ensure that where development does take place it is located on those portions of a site and in a manner that is least disruptive to the natural functions of the land and to specify mitigation measures to address water quality protection.

The applicant shall submit a WQIA in accordance with Section 110-85(b) for:

- 1. Any proposed land disturbance, development or redevelopment within a resource protection area including any buffer area modification or reduction as provided for in section 110-84; or
- 2. Any proposed development or redevelopment in the resource management area that may significantly impact water quality due to the unique characteristics of the site or intensity of the proposed use or development.
- 3. Upon determination that the proposed development or redevelopment would not significantly impact water quality, the zoning administrator may waive this requirement as stated in subsection 110-80(e).

## I. <u>Development Characteristics</u>

You must submit either a minor or major WQIA for your project unless you receive a waiver. The below conditions will determine whether you submit a major or minor WQIA.

Submit a <b>Minor WQIA</b> if you answer "Yes" to either of these development characteristics (Section 110-85(c)):
5,000 square feet of disturbance or less
Encroachment onto the landward 50 feet of the 100-foot buffer area
(Skip to Section III, Minor WQIA Requirements)
Submit a <b>Major WQIA</b> if you answer "Yes" to any of these development characteristics (Section 110-85(d)):
Over 5,000 square feet of disturbance
Encroachment onto the seaward 50 feet of the 100-foot RPA buffer area
Location in the resource management area and is deemed necessary by the Zoning Administrator.
(Skip to Section IV, Major WQIA Requirements)

#### II. WQIA Waivers

\_\_\_\_\_ Check here if you plan to submit a WQIA waiver request.

To submit a WQIA waiver request, attach a report detailing how the proposed development or redevelopment does not significantly impact water quality.

## III. Minor WQIA Requirements (Section 110-85(c))

The minor WQIA calculations will demonstrate that the remaining buffer area and best management practices will result in removal of no less than 75 percent of sediments and 40 percent of nutrients from post development stormwater runoff.

Requirements for a minor WQIA scaled site drawing include:

- 1) Location of the components of any RPA, including the 100 foot buffer area;
- 2) Location and nature of proposed improvements, including:
  - a. Type of paving material;
  - b. Areas of clearing or grading;
  - c. Location of any structures, drives, or other impervious cover; and
  - d. Sewage disposal systems or reserve drain field sites;
- 3) Type and location of proposed best management practices to meet the required general performance standards specified in Section 110-84;
- 4) Location of existing vegetation on site, including the number and type of trees and other vegetation to be removed to accommodate the encroachment or modification; and
- 5) A revegetation plan that supplements the existing buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control.
- 6) Certification of all required information as complete and accurate by a Class IIIB certified land surveyor and a certified wetlands delineator.

### IV. Major WQIA Requirements (Section 110-85(d))

Requirements for a major WQIA include:

- 1) All of the information required in a minor WQIA (Section III above);
- 2) Hydrological element that describes:
  - a. Existing topography;
  - b. Estimates of soil characteristics and potential for erosion;
  - c. Hydrology of the area;
  - d. Proposed mitigation measures; and
  - e. Listing of requisite permits with permit or application status.
- 3) Landscape element that describes:
  - a. Existing trees required to be identified as part of a Tree Management Plan in accordance with subsection 110-252(c);
  - b. Limits of clearing and grading;
  - c. Trees and indigenous vegetation that are to be preserved within the disturbed area;

- d. Measures to be taken to protect vegetation, proposed plantings and other vegetative measures used to enhance water quality; and
- e. Proposed construction schedule that includes all activities related to clearing, grading and proposed plantings.
- 3) Such other measures as deemed necessary by the Zoning Administrator to ensure the impact to water quality can be accurately predicted; and
- 4) Certification of all required information as complete and accurate by a Class IIIB certified land surveyor and professional wetlands delineator.

## V. <u>Evaluation Procedure (Section 110-85(f))</u>

### **Minor WQIA**

The Zoning Administrator shall determine if any proposed modification or reduction to the buffer area is consistent with the provisions of this division and make a finding based upon the following criteria:

110-85(f)1.	Minor WQIA Criteria	Satisfied (Y/N)
a.	The proposed encroachment is necessary and	
	there is no other location on site to place	
	improvements without disturbing the buffer	
	area.	
b.	The impervious surface is minimized.	
c.	The proposed best management practices,	
	where required, achieve the requisite	
	reductions in pollutant loadings.	
d.	The development, as proposed, meets the	
	purpose and intent of this division.	
e.	The cumulative impact of the proposed	
	development, when considered in relation to	
	other development in the vicinity, both	
	existing and proposed, will not result in a	
	significant degradation of water quality.	
f.	Any other information deemed necessary by	
	the Zoning Administrator.	

## Major WQIA

The Zoning Administrator shall determine if the proposed development is consistent with the purpose and intent of this division and make a finding based upon the following criteria:

110-85(f)2	Major Water Quality Criteria	Satisfied (Y/N)
a.	The disturbance of any wetlands is minimized.	
b.	The development will not result in significant	
	disruption of the hydrology of the site.	
c.	The development will not result in significant	
	degradation to aquatic life.	
d.	The development will not result in unnecessary	
	destruction of plant materials on site.	
e.	Proposed erosion and sediment control concepts	
	are adequate to achieve the reductions in runoff	
	and prevent offsite sedimentation.	
f.	Proposed stormwater management measures are	
	adequate to control the stormwater runoff to	
	achieve the required performance standard for	
	pollutant control.	
g.	Proposed revegetation of disturbed areas will	
	provide optimum erosion and sediment control	
	benefits.	
h.	The design and location of any proposed drain	
	field will be in accordance with the general	
	performance standards outlined in section 110-	
	84.	
i.	The development, as proposed, is consistent	
	with the purpose and intent of this division.	
j.	The cumulative impact of the proposed	
	development, when considered in relation to	
	other development in the vicinity, both existing	
	and proposed, will not result in a significant	
	degradation of water quality.	

WQIA Approved/Waiver Approved		
Special Projects Engineer	Date	

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# CITY OF FAIRFAX NOTES TO BE INCLUDED ON THE SITE PLAN PERMITS

- 1. A street opening permit is required for any work in a City right-of-way or easement. The permit can be obtained from the Public Works Department. For information, call 703.385.7980 or 703.385.7810.
- 2. All sidewalks, curbs, gutters, driveways, streets, storm pipes, water lines, sanitary sewer, endwalls and rip-raps must be inspected by the City. All work in the City streets will be performed Monday-Friday between the hours of 9:00 a.m. and 3:00 p.m. No work is to be performed on weekends or holidays unless pre-approved by the Director of Public Works.
- 3. Inspections performed by the Facilities Inspector will require a four-hour notice prior to inspections.

#### **GENERAL STANDARDS**

- 1. The Public Works Director must be notified one week prior to pre-construction conference, one week prior to commencement of land disturbing activity and one week prior to final inspection. The Site Plan Coordinator in Community Development and Planning (703-385-7820) must be notified one week prior to the pre-construction conference.
- 2. A preconstruction meeting will be required three days prior to any construction. Contractors will notify the Public Works Department or Facilities Inspector for all work done on site and off site one day prior to starting.
- 3. The contractor shall provide adequate means for parking construction equipment and provide employee parking on site.
- 4. All construction shall conform to the latest City of Fairfax standards, Virginia Department of Transportation and the Virginia Sediment & Erosion Control current specifications, except as shown or altered by these plans.
- 5. Traffic signs found to be in the way at construction sites shall be removed or relocated only by personnel in the Sign & Signal Crew of the Public Works Department at the contractor's request. Any contractor found responsible for moving City property without permission will receive a summons.
- 6. All building construction shall be in accordance with the current edition of the Virginia Uniform Statewide Building Code. Permits and inspections for building, electrical, plumbing, mechanical and fire protection work are obtained from the Office of Code Administration, 703.385.7830.
- 7. Private fire mains require a permit from the Office of Code Administration. Permit application must include details of installation as specified in NFPA-24. An approved site plan is not a permit to install fire mains.
- 8. No portion of any building shall be occupied until a certificate of occupancy has been issued by the Building Official and a use permit by the Zoning Office.
- 9. No building, except additions or accessories to existing dwellings, shall proceed beyond first floor level until the location of the footing and walls as shown on a plat certified by a land surveyor has been approved by the Zoning Administrator.
- 10. An as-built plan must be submitted within 30 days after completion of all construction.
- 11. Temporary structures, construction trailers and demolition require permits from the Office of Code Administration prior to start of work or installation.

- 12. Adequate emergency vehicle access shall be maintained at all times. A hard surfaced, all-weather roadway shall be provided to within 50 feet of all structures and any location where combustible materials are stored.
- 13. City ordinance permits construction noise, including excavation, between the hours of 7:00 am and 6:00 pm on weekdays and 8:30 am and 5:00 pm on Saturdays ONLY. It shall be the responsibility of the developer to ensure that all contractors and subcontractors comply with this ordinance.
- 14. The Developer shall be responsible for ensuring compliance with City Code sections limiting growth of grass and weeds to six inches in height.

#### **CONSTRUCTION**

- 1. All subgrade and sub-base material shall be compacted to 95% of theoretical maximum density as determined by A.A.S.H.O. T-99 method A within plus or minus 20% of optimum moisture for the full width of any dedicated right-of-way and all townhouse, apartment, condominium, commercial and industrial parking lots (including storm sewer, sanitary sewer and water).
- 2. Compaction test shall be performed by the contractor. Subgrade for curb, gutter and sidewalk shall be every 50 feet; sub-base will be alternated every 25 feet. Driveways require two tests on subgrade and sub-base. Copy of results is required prior to placing any type of material. VTM-1 correction also must be used. All structures require two tests on subgrade and sub-base.
- 3. Compaction tests for roadways shall be performed by the City only, unless approved by the Public Works Director. Compaction tests for all building pads must be submitted to the office of Code Administration for review and approval.
- 4. All underground utilities within the street right-of-way shall be installed to the required distance beyond the right-of-way.
- 5. Storm sewer and culvert pipe shall be reinforced concrete pipe to conform to the current A.A.S.H.T.O. designation M170, unless otherwise designated on the plans. Class II pipe is permitted beyond the limits of street rights-of-way. Class III pipe is required within the limits of the rights-of way.
- 6. All curb and gutter shown on plans and not in profiles shall be on straight tangent grades. The contractor shall round all vertical breaks with smooth spline curbs.
- 7. All pavement placed on City right-of-way shall have a mix design approved prior to placing material and a density test performed during placement.
- 8. Street signs and markings shall be installed by the developer at all street intersections in a location to be determined by the Director of Public Works. Private access ways and alleys shall be clearly designated as such by a sign at every entrance from a public street, stating "private street, privately owned and privately maintained". All street markings and signage will conform to City of Fairfax standards and the Manual of Uniform Traffic Control, per the Street Superintendent.
- 9. C.B.R. test is required for actual determination of required sub-base thickness prior to construction. Depth of sub-base is based on subgrade C.B.R. value of 10. Where C.B.R. value is less than 10, one-inch of sub-base or base material shall be added for each point below 10 for on site and off site and shall be reviewed by the City of Fairfax for special design.

- 10. All construction must comply to the Code of Virginia 36-98 and 36-99 by reference as part of the Uniform Statewide Building Code of Virginia, the final fair housing accessibility guidelines (24 CFR Chapter I) and the Americans with Disabilities Act accessibility guidelines (28 CFR, part 36) as per site and right-of-way work compliance.
- 11. Provide proper distance from back of sidewalk to building for stoops and steps, and the like.
- 12. All roofs, paved areas, yards, courts and courtyards shall be drained into a separate storm sewer or a combined sewer system.

#### ENVIRONMENTAL

- 1. All erosion siltation control to be installed prior to starting project to conform to the current Virginia Erosion and Sediment Control Manual.
- 2. The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering the City of Fairfax rights-of-way. It is the contractor's responsibility to clean streets and allay dust and to take whatever measures necessary to ensure that the road is maintained in a clean and dust-free condition at all times.
- 3. It shall be the contractor's responsibility to perform the work in such a manner to prevent the washing of any topsoil, silt, or debris onto adjacent properties.
- 4. If the presence of asbestos is suspected in the soil, the contractor must contact the Air Pollution Control Division of the Fairfax County Health Department at 703.246.2300.
- 5. Onsite storage of fuel shall be limited to diesel fuel tanks not over 660 gallons capacity. Tanks shall be of a listed type and shall be provided with approved secondary containment, impact protection and placarding. A minimum 2A-40BC fire extinguisher shall be provided in the vicinity of the refueling area. A permit for combustible liquid storage shall be obtained from the Office of Code Administration, 703.385.7830. Fuel shall not be placed in onsite storage tanks until the installation has been inspected and approved.
- 6. Onsite repair of vehicles and equipment shall be limited to replacement of damaged belts, hoses and tires. Any spill of fuel, oil, hydraulic fluid or anti-freeze greater than one gallon must be reported to the Office of Code Administration at 703.385.7830. All spills must be cleaned up promptly and in an approved manner.
- 7. The Owner shall be responsible for ensuring compliance with City Code sections regarding health and safety menaces, including accumulations of water, storage of material, construction debris and security of the site.
- 8. The link to the asbestos information and map on the Fairfax County website <a href="http://www.fairfaxcounty.gov/hd/asb/">http://www.fairfaxcounty.gov/hd/asb/</a>
- 9. Prior to the start of any site grading work, the developer or owner shall provide the city of Fairfax Public Works Facilities Inspector with documentation that a VSMP permit has been issued by the VA Department of Conservation and Recreation. The VSMP permit requires that a Stormwater Pollution Prevention Plan (SWPPP) be kept at the construction site at all times.

#### **LANDSCAPE**

- 1. The area surrounding all trees, shrubs and groundcover shall be topped with two inches of shredded hardwood bark mulch.
- 2. No changes shall be permitted to the plant list unless approved by the City of Fairfax.

- 3. Trees shall be classified as per "American Standard for Nursery Stock" as adopted by the American Association of Nurserymen. Plant material below this standard shall not be considered.
  - a) All plants must conform to requirements per plant list;
  - b) All plant materials must be nursery grown stock;
  - c) All trees must be well branched, full crown.
- 4. At least 5 days before being planted, the Site Plan Coordinator shall be notified that plants are available for inspection.
- 5. No person shall remove or destroy any tree which is five (5) inches or greater in caliper, measured six (6) inches above ground level, on any lot greater than one-half (1/2) acre without first obtaining a tree removal permit from the Zoning Administrator. Any tree removed, damaged or destroyed will be replaced at the discretion of the Zoning Administrator.

# DEPARTMENT OF UTILITIES STANDARD NOTES GENERAL

- 1. All water mains and sanitary sewers shall be constructed in accordance with the current City of Fairfax Standards and Specifications.
- 2. Easements for all sanitary and water mains shall be 10' unless otherwise noted.
- 3. Sanitary sewers and water mains shall maintain a minimum of 15' horizontal separation from proposed or existing buildings.
- 4. No landscaping or other utilities (i.e. gas, phone, cable, etc.) are permitted in the water and sewer easements, except at crossings.
- 5. Contractor shall request pre-construction meeting and inspection by the City of Fairfax Department of Public Works (703.385.7810) three days prior to commencing construction of any water and sewer mains.
- 6. A permit for installation of sanitary sewers, fire hydrants and water mains shall be obtained from the Department of Public Works.
- 7. Prior to any water main installation, all required sanitary sewers, including laterals, and storm sewers must be installed and backfilled to 95% compaction.
- 8. Water and sewer laterals not within an easement require plumbing permits and inspections from the Office of Code Administration. The inclusion of these items does not constitute a permit.
- 9. Final approval from the City of Fairfax Department of Utilities is contingent upon receipt by the Department of plans showing the location of ALL proposed utilities. ALL proposed utilities are to be located out of the water or sewer easements, except for crossings.

## WATER MAIN

- 1. Water services shall maintain a minimum of 6' horizontal separation from sanitary laterals.
- 2. All hydrants and meter crocks shall maintain 5' horizontal separation from edge of driveway aprons, when possible.
- 3. Water mains shall maintain a minimum 2.5' horizontal separation from edge of gutter pan, except at designated crossings.
- 4. All water mains less than or equal to 12" in diameter shall be class 52 ductile iron pipe with cement lining. All water mains greater than 12" in diameter shall be class 54 ductile iron pipe with cement lining.

- 5. A 2" detectable marking tape shall be placed 2' above all water mains.
- 6. Contractor is responsible to install type K Copper with AWWA approved corporation stop and angle valve for all water service lines smaller than or equal to 2", and extend a 5' section (Pig Tail) beyond the meters. Meter boxes, yokes, angle valves, and dual check valves will be provided by the City of Fairfax Department of Utilities.
- 7. Pressure testing and disinfection of water mains shall be in accordance with AWWA C-600 and AWWA C-601 Standards, respectively.
- 8. Water valves shall be operated by the Department of Utilities' staff only (703.385.7920; after hours call 703.385.7924).
- 9. Water valve box lids shall have the word "Water" or the letter "W" cast in them.
- 10. Fire line valve box lids, at connection to city water main, shall have the word "Fire" cast in them. Minimum fire valve size is 6".
- 11. No blasting is permitted within city limits and within 50' of city's transmission main in Fairfax and Loudoun Counties.
- 12. All water mains shall have a minimum cover of 4'.
- 13. Proposed fire hydrants shall be painted by the contractor per city specifications, and shall be equipped with the Department approved reflective information ring. The paint shall consist of two additional coatings on top of the coating provided by the hydrant manufacturer.

Safety Red – B54 R38 617-4064

Pure White – B54 W101 7907-99993

14. Proposed and existing fire hydrants that have been taken off line for construction reasons or have not yet been approved for use by the city's inspector shall be "bagged" to alert the Fire Department.

#### **SANITARY SEWER:**

- 1. Sanitary sewers shall be PVC DR-25 per AWWA C-900, unless otherwise noted.
- 2. Sanitary sewer laterals shall be 4" PVC DR-25 between the main and the property line and shall enter the main at 90 degrees. A cleanout shall be installed at the property line.
- 3. A 2" detectable metal marking tape shall be placed 3-feet above all sanitary sewers.
- 4. The Department of Utilities shall inspect sanitary sewers by a camera after the lines are put in service.
- 5. Finish grade shall drain away from manholes located outside of pavement areas.
- 6. Top of manholes located outside of pavement areas shall be 3" above final grade, except in established lawns where it shall match the final grade.
- 7. Manholes shall have bituminous coating on the outside walls.
- 8. All sanitary manhole lids shall be heavy duty and shall have the words "Fairfax City Sewer" cast in them.
- 9. Drop manholes shall have an 8" inside drop pipe.
- 10. Manholes in 100 yr. Flood plain shall have watertight lids.
- 11. All testing is provided by the contractor, as directed by the city inspector.

## SEC. 110-336. PURPOSE {EROSION AND SEDIMENT CONTROL}

The purpose of this division is to provide that adequate control measures are taken to prevent the erosion, flooding, overflow of stormwater, and uncontrolled drainage from land being subdivided or developed during the period of site preparation, development or construction and thereafter; to provide temporary and permanent safeguards on all land proposed for development where unstable slopes, highly erodible or other unusual soil conditions exist or will be created during the course of development or construction; to provide soil conservation practices specifically designed for the protection of such lands from erosion, flooding, siltation or sedimentation resulting from the exposure of the soil during the period of site clearance, development or construction; and to provide for the establishment of temporary engineering structures and agronomy practices to prevent erosion and sedimentation.

(Code 1978, § 26-91)

#### Sec. 110-337. Definitions.

For the purposes of this division, the following words and phrases shall have the meanings respectively ascribed to them by this section unless the context clearly indicates otherwise: *Agreement in lieu of a plan* means a contract between the plan-approving authority and the owner which specifies conservation measures which must be implemented in the construction of a single-family residence; this contract may be executed by the plan-approving authority in lieu of a formal site plan.

Erosion impact area means an area of land not associated with current land disturbing activity but subject to persistent soil erosion resulting in the delivery of sediment onto neighboring properties or into state waters. This definition shall not apply to any lot or parcel of land of 10,000 square feet or less used for residential purposes or to shorelines where the erosion results from wave action or other coastal processes.

Land disturbing activity means any land change which may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands in the commonwealth, including, but not limited to, clearing, grading, excavating, transporting, and filling of land, except that the term shall not include:

- (1) Minor land disturbing activities such as home gardens and individual home landscaping, repairs and maintenance work;
- (2) Individual service connections;
- (3) Installation, maintenance, or repair of any underground public utility lines when such activity occurs on an existing hard surfaced road, street or sidewalk provided the land disturbing activity is confined to the area of the road, street or sidewalk which is hard surfaced;
- (4) Septic tank lines or drainage fields unless included in an overall plan for land disturbing activity relating to construction of the building to be served by the septic tank system;
- (5) Surface or deep mining;
- (6) Exploration or drilling for oil and gas including the well site, roads, feeder lines and off-site disposal areas;

- (7) Tilling, planting, or harvesting of agricultural, horticultural, or forest crops, or livestock feedlot operations; including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Code of Virginia, § 10.1-1100 et seq., or is converted to bona fide agricultural or improved pasture use as described in Code of Virginia, § 10.1-1163(B);
- (8) Repair or rebuilding of the tracks, right-of-way, bridges, communication facilities and other related structures and facilities of a railroad company;
- (9) Agricultural engineering operations including but not limited to the construction of terraces, terrace outlets, check darns, desilting basins, dikes, ponds not required to comply with the provisions of the Dam Safety Act (Code of Virginia, § 10.1-604 et seq.), ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage and land irrigation;
- (10) Disturbed land areas of less than 10,000 square feet in size; however, the governing body may reduce this exception to a smaller area of disturbed land or qualify the conditions under which this exception shall apply;
- (11) Installation of fence and sign posts or telephone and electric poles and other kinds of posts or poles;
- (12) Shore erosion control projects on tidal waters when the projects are approved by local wetlands boards, the state marine resources commission or the United States Army Corps of Engineers; and
- (13) Emergency work to protect life, limb or property, and emergency repairs; however, if the land disturbing activity would have required an approved erosion and sediment control plan, if the activity were not an emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of the plan-approving authority.

*Owner* means the owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee or other person, firm or corporation in control of a property.

*Permittee* means the person to whom the permit authorizing land disturbing activities is issued or the person who certifies that the approved erosion and sediment control plan will be followed. *Person* means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town, or other political subdivision of the Commonwealth, any interstate body, or any other legal entity.

*Plan-approving authority* means the person responsible for determining the adequacy of a conservation plan submitted for land disturbing activities on a unit or units of lands and for approving plans.

*Responsible land disturber* means a person from the project team or development team who will be in charge of and responsible for carrying out the land-disturbing activity for the project, and who holds a responsible land disturber certificate as governed by the Virginia Department of Conservation and Recreation.

*State waters* means all waters on the surface and under the ground wholly or partially within or bordering the commonwealth or within its jurisdiction.

(Code 1978, § 26-92; Ord. No. 2001-17, 11-13-2001)

**Cross references:** Definitions generally, § 1-2.

**State law references:** Similar provisions, Code of Virginia, § 10.1-560.

## Sec. 110-338. Designation of plan-approving authority.

The director of public works, or his designee, is hereby appointed to serve as the agent of the city responsible for approving soil erosion and sediment control plans and otherwise administering this division as the plan-approving authority.

(Code 1978, § 26-92)

#### Sec. 110-339. Permits.

It shall be unlawful for any person to engage in land disturbing activities of 2,500 square feet or more for any purpose until a permit is issued by the plan-approving authority, adequate soil erosion and sediment control measures are utilized as approved by the plan-approving authority and the activity is allowed in the zoning district in which it is located. The following activities, however, are exempt from the requirement for a permit, provided the activity is allowed in the zoning district in which it is located:

- (1) Minor land disturbing activities such as home gardens and individual home landscaping, repairs and maintenance work.
- (2) Individual service connections.
- (3) Installation, maintenance or repair of any underground public utility lines when such activity occurs on an existing hard-surfaced road, street or sidewalk, provided such land disturbing activity is confined to the area of the road, street or sidewalk which is hard-surfaced.
- (4) Septic tank lines or drainage fields unless included in an overall plan for land disturbing activity relating to construction of the building to be served by the septic tank system.
- (5) Surface or deep mining.
- (6) Exploration or drilling for oil and gas including the well site, feeder lines, roads and off-site disposal areas.
- (7) Tilling, planting or harvesting of agricultural, horticultural or forest crops or products, livestock feed lot operations, or engineering operations such as the construction of terraces, terrace outlets, check dams, desilting basins, floodwater-retarding structures, channel improvements, floodways, dikes, ponds, ditches and the like; the utilization of strip cropping, lister furrowing, contour cultivating, and contour furrowing; land drainage; land irrigation; seeding and planting of waste, sloping, abandoned or eroded lands to water-conserving and erosion-preventing plants, trees and grasses; forestation and reforestation; rotation of crops; soil stabilization with trees, grasses, legumes, and other thick-growing, soil-holding crops; retardation of runoff by increasing absorption of rainfall; and retirement from cultivation of steep, highly erosive areas and areas now badly gullied or otherwise eroded.
- (8) Repair or rebuilding of the tracks, rights-of-way, bridges, communication facilities and other related structures and facilities of a railroad company.
- (9) Installation or maintenance of fence and sign posts or telephone and electric poles and other kinds of posts or poles.
- (10) Emergency work to protect life, limb or property, and emergency repairs. If the land disturbing activity would have required an approved erosion and sediment control plan in the absence of an emergency, then the disturbed land area shall be shaped and stabilized as required by the plan-approving authority in accordance with section 110-341.

(11) Any project undertaken by a state agency involving a land disturbing activity that has been approved by the state soil and water conservation board. (Code 1978, § 26-94)

## Sec. 110-340. Plan required for issuance of permit.

- (a) Approval of plan required before commencement of land disturbing activity. No person shall engage in any land disturbing activity and no permit for such activity shall be issued until the plan-approving authority approves a soil erosion and sediment control plan for the land disturbing activity prepared and certified by an engineer or land surveyor. This plan may be contained on a separate sheet or included with the drainage or grading plan.
- (b) *Owner's responsibility*. Whenever a land disturbing activity is proposed to be conducted by a person performing work pursuant to a construction contract, the preparation, submission and approval of the required erosion and sediment control plan shall be the responsibility of the owner of the land.
- (c) Activities extending into another jurisdiction. The land disturbing activities involving lands which extend into the jurisdiction of another local erosion and sediment control program shall be approved by the state soil and water conservation board or each jurisdiction where the land is located, and shall comply with the requirements of section 110-342 concerning an installation and maintenance agreement and bond.
- (d) Agreements for single-family residences. Where the land disturbing activity results from the construction of a single-family residence, an agreement in lieu of a plan may be substituted for an erosion and sediment control plan if such an agreement is approved by the plan-approving authority.
- (e) *Plans for erosion impact areas*. In order to prevent further erosion on an area of land identified as an erosion impact area, the plan-approving authority may require approval of a soil erosion and sediment control plan. (Code 1978, § 26-95)

## Sec. 110-341. Standards for approval of plan.

- (a) Within 45 days of receipt of a soil erosion and sediment control plan, the plan-approving authority shall either approve or disapprove the plan in writing according to the standards set forth in this section. In addition, the provisions of section 110-342 must be met to gain plan approval. If a plan is not approved, the plan-approving authority shall specify the modifications, terms, and conditions that will permit approval of the plan and communicate these requirements to the applicant in writing. If no action is taken by the plan-approving authority within the time specified in this subsection, the plan shall be deemed approved and the permit issued.
- (b) Plans submitted for approval under this chapter shall be prepared in accordance with the state erosion and sediment control regulations VR625-02-00, and any amendments and revisions thereto, and the guidelines contained in the current edition of the Virginia Erosion and Sediment Control Handbook, and any amendments and revisions thereto, both of which are hereby adopted as part of this chapter. In accordance with state law and as a prerequisite to approval of the plan, the applicant shall provide the name of an individual (the responsible land disturber) holding a responsible land disturber certificate who will be in charge of and responsible for carrying out the land-disturbing activity.
- (c) The conservation criteria, standards and specifications which must be followed in developing and implementing an erosion and sediment control plan are those contained in the state erosion

and sediment control regulations VR625-02-00, and any amendments and revisions thereto, and the current edition of the Virginia Erosion and Sediment Control Handbook, and any amendments and revisions thereto, both of which are hereby adopted as part of this chapter.

- (d) An approved plan may be changed by the plan-approving authority in the following cases:
- (1) Where inspection has revealed the inadequacy of the plan to satisfy applicable regulations and to accomplish the erosion and sediment control objective of the plan, and appropriate modifications to correct the deficiencies of the plan are specified by the plan-approving authority; or
- (2) Where the owner, permittee, or person responsible for carrying out the plan finds that because of changed circumstances or for other compelling reasons the approved plan cannot be effectively implemented, and proposed amendments to the plan, consistent with the requirements of this division, are agreed to by the plan-approving authority and the owner, permittee, or person responsible for carrying out the plan.

(Code 1978, § 26-96; Ord. No. 2001-17, 11-13-2001)

#### Sec. 110-342. Installation and maintenance agreement and bond.

- (a) Prior to approval of the plan, the owner or his agent must execute and submit an agreement in form and substance as approved by the city to establish the measures provided for on the plan for the control of siltation and erosion, together with a cash bond to be deposited and held in escrow by the city. No interest shall be paid by the city for any funds held in escrow. The agreement and bond shall be provided to ensure the installation, maintenance and performance of the approved measures and in the agreement the owner or his agent must certify that he will properly perform the conservation measures included in the plan and conform to the provisions of this division. The bond shall be in the amount of the estimated cost of such measures as determined by the planapproving authority. If the plan-approving authority takes conservation action due to the failure of the owner or his agent to perform such measures as included in the approved plan or to conform to this division, the plan-approving authority may collect from the owner additional funds should the cost of such action exceed the security held. The adequacy, conditions and acceptability of the bond shall be determined by a bond committee appointed by the city manager. In any case where the bond committee rejects any such agreement or bond, the owner or his agent may appeal from such decision to the city council, provided the owner or his agent has paid to the city the required filing fee.
- (b) Upon adequate stabilization of the work for which the city has issued a permit and received a bond as required by this division, the owner or his agent may apply to the plan-approving authority in writing for a certificate of completion and discharge of the unexpended or unobligated portion of such bond. If the work is found by the plan-approving authority to conform to the approved days of receipt of the application. (Code 1978, § 26-97)

## Sec. 110-343. Review and inspection fee required.

An erosion and sediment control review and inspection fee consistent with the schedule of rates and levies adopted by the city council shall be paid to the city at the time of submission of plans to the plan-approving authority.

(Code 1978, § 26-98)

## Sec. 110-344. Permit not to authorize changes in floodplain.

Approval of the plan shall not be construed to authorize the construction or alteration of any structure within the floodplain or to authorize any filling, grading, or other change of the contour of the floodplain without such permit, authorization or approval as may be required by this chapter.

(Code 1978, § 26-99)

#### Sec. 110-345. Monitoring, reports and inspections.

The plan-approving authority shall periodically inspect land disturbing activities for compliance with the approved plan and permit. The owner, permittee, or person responsible for carrying out the plan shall be given notice of inspections.

- (1) Monitoring and reports may be required by the plan-approving authority of the owner, permittee, or person responsible for carrying out the plan to ensure compliance with the plan and that the measures required in the plan are effective in controlling erosion and sediment.
- (2) Upon determination of a failure to comply with the plan, the plan-approving authority shall serve notice by certified or registered mail to the address specified in the permit application or by hand delivery to the owner, permittee, or person responsible for carrying out the plan, specifying the measures needed for plan compliance and the time within which the measures must be completed. Failure to comply within the specified time may result in revocation of the permit at which time the notified individual shall be deemed to be in violation of this division.
- (3) Regardless of the requirement for notice in subsection (2) of this section, if land disturbing activities begin without an approved plan, the plan-approving authority may issue an order requiring all land disturbing activities be stopped until an approved plan and required permits are obtained. If the alleged violator has not obtained an approved plan and required permits within seven days from the service date of the order, the plan-approving authority shall issue an order to the owner requiring that all construction and other work on the site, other than corrective measures, be stopped until an approved plan and required permits are obtained. The order shall be served upon the owner by registered or certified mail to the address specified in the permit application or the city land records. The order shall be lifted immediately upon completion of corrective action and obtaining plan approval and required permits. The owner may appeal the issuance of an order to the circuit court of the county. In addition, if the alleged activity is in imminent danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth, the plan-approving authority may issue an order requiring that all land disturbing activities be stopped regardless of the notice requirement of subsection (2) of this section.
- (4) Unless the violation is causing or is in imminent danger of causing harmful land erosion or sediment deposition in waters within the watersheds of the commonwealth, or land disturbing activities occurred without an approved plan and required permit, an order to stop work shall only be issued after the alleged violator failed to comply with a notice to comply sent according to subsection (2) of this section. The order may require that all or part of the land disturbing activities be stopped until the specified corrective measures have been taken. The order shall be served by certified mail or hand delivery and shall remain in effect for seven days from the date of service pending application by the city or alleged violator to the circuit court of the county for appropriate relief. The order shall be lifted immediately upon completion of corrective measures. Nothing in this section shall prevent the plan-approving authority from taking any other action specified in this division.

(Code 1978, § 26-100)

## Sec. 110-346. Penalties, injunctions and other legal actions.

- (a) Violations of any requirement of this division or any condition of a permit shall be subject to a civil penalty. The civil penalty for any one violation shall be \$100.00, except that the civil penalty for commencement of land disturbing activities without an approved plan shall be \$1,000.00.
- (b) In no event shall a series of violations arising from the same set of operative facts result in civil penalties which exceed a total of \$3,000.00, except that a series of violations ensuing from the commencement of land disturbing activities without an approved plan for any site shall not result in civil penalties which exceed \$10,000.00.
- (c) The plan-approving authority may apply to the circuit court of the county to enjoin a violation or a threatened violation.
- (d) Any person violating, failing, neglecting or refusing to obey any injunction, mandamus or other remedy obtained pursuant to Code of Virginia, § 10.1-569 shall be subject, in the discretion of the court, to a civil penalty not to exceed \$2,000.00 for each violation. Any civil penalty so assessed shall be payable to the treasury of the city. (Code 1978, § 26-101)

#### Sec. 110-347. Administrative appeal; judicial review.

- (a) Final decisions of the plan-approving authority under this division may be appealed to the city council, provided an appeal is filed within 30 days from the date of any written decision by the plan-approving authority which adversely affects the rights, duties or privileges of the person engaging in or proposing to engage in land disturbing activities.
- (b) Final decisions of the city council under this division may be subject to review by the circuit court of the county, provided an appeal is filed within 30 days from the date of the final written decision which adversely affects the rights, duties or privileges of the person engaging in or proposing to engage in land disturbing activities.

(Code 1978, § 26-102)

Secs. 110-348--110-365. Reserved.

#### SEC. 110-76. TITLE.

# THIS DIVISION SHALL BE KNOWN AND REFERENCED AS THE "CHESAPEAKE BAY PRESERVATION AREA ORDINANCE" OF THE CITY.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-77. Findings of fact.

The Chesapeake Bay together with its tributaries is one of the most important and productive estuarine systems in the world, providing economic and social benefits to the citizens of the city and the commonwealth.

The Chesapeake Bay waters have been degraded significantly by many sources of pollution, including non-point source pollution from existing land uses and new development. Existing high quality waters are worthy of protection from degradation to guard against further pollution. Certain lands that are proximate to shorelines have intrinsic water quality value due to the ecological and biological processes they perform. Other lands have severe development constraints from flooding, erosion, and soil limitations. With proper management, they offer significant ecological benefits by providing water quality maintenance and pollution control, as well as flood and shoreline erosion control. These lands together, designated by the City Council as Chesapeake Bay preservation areas, need to be protected from destruction and damage in order to protect the quality of water in the bay and consequently the quality of water in the city and the commonwealth.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-78. Purpose and intent.

- (a) This division is enacted to implement the requirements of Code of Virginia, § 10.1-2100 et seq., the Chesapeake Bay Preservation Act. These regulations establish the criteria that the city shall use to determine the extent of the Chesapeake Bay preservation areas. These regulations also establish criteria for use by the city in approving, denying or modifying requests to rezone, subdivide, use, develop and/or redevelop land in Chesapeake Bay preservation areas. The intent of the city council and the purpose of this division is to:
- (1) Protect sensitive environmental lands within the city;
- (2) Safeguard the quality of state waters;
- (3) Prevent further increase in pollution of state waters;
- (4) Reduce existing pollution of state waters; and
- (5) Promote water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the city.
- (b) Unless otherwise stated in this division, the review and approval procedures provided for in chapter 110 of the City Code, Zoning, shall be adhered to in reviewing and approving development, redevelopment and uses governed by this division. (Ord. No. 2003-22, 11-25-2003)

## Sec. 110-79. Areas of applicability.

(a) The Chesapeake Bay preservation area ordinance shall apply to all lands identified as Chesapeake Bay preservation areas as designated by the city council and as shown on the city Chesapeake Bay preservation area map.

The Chesapeake Bay preservation area map, together with all explanatory matter thereon, is hereby adopted by reference and declared to be a part of this division. The map entitled "City of Fairfax Chesapeake Bay Preservation Area Map" shall be identified by the signature of the zoning administrator, attested to by the city clerk, together with the date of adoption by city council. The map shall show the general location of Chesapeake Bay preservation areas within the city and should be consulted by persons contemplating activities within the city prior to engaging in a regulated activity. The specific delineation of the Chesapeake Bay preservation area boundaries is the responsibility of the applicant in accordance with section 110-83 of this division.

- (1) The resource protection area includes:
- a. Tidal wetlands;
- b. Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;
- c. Tidal shores;
- d. Intermittent streams that remain largely in a natural condition and that have not been significantly impacted by adjacent development, as depicted on the city's Chesapeake Bay preservation area map;
- e. Water bodies with perennial flow, as depicted on the city's Chesapeake Bay preservation area map; and
- f. A 100-foot vegetated buffer area located adjacent to and landward of the components listed in subparagraphs a. through e. above, and expanded to include noncontiguous wetlands within the floodplain that are partially located within the buffer, along both sides of any water body with perennial flow. The full buffer area shall be designated as the landward component of the resource protection area notwithstanding the presence of permitted uses, encroachments or permitted vegetation clearing in compliance with the performance criteria of this division.
- (2) The resource management area includes all lands in the city that are not designated as resource protection areas.
- (b) If the boundaries of a Chesapeake Bay Preservation Area include a portion of a lot, parcel, or development project, only that portion of the lot, parcel, or development project shall be subject to the requirements of this division except as provided for in section 110-80(d). The division of property shall not constitute an exemption from this requirement. (Ord. No. 2003-22, 11-25-2003)

#### Sec. 110-80. Use regulations.

- (a) Development, land disturbances and uses authorized by underlying zoning classifications are allowed provided that they are carried out in accordance with the applicable general performance standards set forth in section 110-84 of this division or otherwise modified by the requirements set forth herein.
- (b) Development in resource protection areas (RPAs) may be permitted if it:
- (1) Constitutes redevelopment; or
- (2) Is a roadway or driveway not exempt under section 110-88, provided that:
- a. There are no reasonable alternatives to aligning the road or driveway in or across the RPA;

- b. The alignment and design of the road or driveway are optimized, consistent with other applicable requirements, to minimize encroachment in the RPA and adverse effects on water quality; and
- c. The design and construction of the road or driveway satisfy all applicable criteria of this ordinance, including the submission of a water quality impact assessment.
- (3) Is a flood-control or stormwater-management facility that drains or treats water from multiple development projects or from a significant portion of a watershed, provided that:
- a. The location of the facility within the RPA is the optimum location;
- b. The size of the facility is the minimum necessary to provide necessary flood control, stormwater treatment, or both;
- c. The facility is consistent with a stormwater management program that has been approved by the Chesapeake Bay local assistance board as a phase I modification to this program;
- d. All applicable permits for construction in state and federal waters are obtained from the appropriate state and federal agencies, such as the U.S. Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission; and
- e. Approval from the city prior to construction.
- (4) Is a new use established pursuant to subsection 110-84(d)(2).
- (c) Routine maintenance is allowed to be performed on flood control or stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed in order to assure that they continue to function as designed, but it is not the intent of this section to allow a best management practice that collects and treats runoff from only an individual lot or some portion of the lot to be located within an RPA.
- (d) All development or redevelopment within a Chesapeake Bay preservation area exceeding 2,500 square feet of disturbed land area shall be subject to the general performance standards in section 110-84 as well as the development review procedures outlined in section 110-86.
- (e) A water quality impact assessment shall be required for any proposed development or redevelopment within a resource management area or resource protection area. Upon determination, however, that the proposed development or redevelopment would not significantly impact water quality, the zoning administrator may waive the requirement for a water quality impact assessment. If a water quality impact assessment is required, the assessment shall include the entire lot, parcel or development project as the area of impact and shall be conducted in accordance with section 110-85 of this division.

(Ord. No. 2003-22, 11-25-2003)

#### Sec. 110-81. Lot size.

The creation of new lots shall be subject to the requirements of the subdivision and zoning ordinances provided that any lot shall have sufficient area outside the resource protection area to accommodate an intended development in accordance with the general performance standards in section 110-84.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-82. Conflict with other regulations.

In any case where the requirements of this division conflict with any other provision of the City Code, the more stringent provision shall apply.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-83. Interpretation of resource protection area and resource management area boundaries.

- (a) *Delineation by applicant*. For any property that is depicted on the city's Chesapeake Bay preservation area map as a resource protection area, the applicant shall determine the site-specific boundaries of the RPA components through the performance of a RPA site-specific study. The Chesapeake Bay preservation area map shall be used only as a guide to the general location of resource protection areas within the city.
- (b) Where conflict arises over delineation. Where the applicant has provided a site-specific delineation of the resource protection area, the zoning administrator shall review and verify the accuracy of the boundary delineation. In determining the site-specific resource protection area boundary, the zoning administrator may render adjustments to the applicant's boundary delineation based on the RPA site-specific study features required in subsection 110-86(c). (Ord. No. 2003-22, 11-25-2003)

#### Sec. 110-84. General performance standards for Chesapeake Bay preservation areas.

(a) Purpose and intent. The performance standards included in this division establish the means to minimize erosion and sedimentation potential, reduce land application of nutrients and toxics, and maximize rainwater infiltration. Natural ground cover, especially woody vegetation, is most effective in holding soil in place and preventing site erosion. Indigenous vegetation, with its adaptability to local conditions without the use of harmful fertilizers or pesticides, filters stormwater runoff. Minimizing impervious cover enhances rainwater infiltration and effectively reduces stormwater runoff potential.

The performance standards are intended to prevent a net increase in non-point source pollution from new development and to achieve a ten percent reduction in non-point source pollution from redevelopment.

- (b) Development and redevelopment in Chesapeake Bay preservation areas.
- (1) Land disturbance shall be minimized and limited to the area necessary to provide for the desired use or development.
- a. In accordance with an approved subdivision or site plan, the extent of land disturbing activity, including clearing or grading, shall be limited to the specified construction footprint. The limits of disturbance shall be clearly shown on submitted plans and physically marked on the development site.
- b. Ingress and egress during construction shall be limited to one access point unless otherwise approved by the zoning administrator.
- (2) Indigenous vegetation shall be preserved to the maximum extent practicable consistent with the use and development proposed and in accordance with the "Virginia Erosion and Sediment Control Handbook."
- a. Existing trees shall be preserved outside the limits of disturbance, however, diseased trees or trees weakened by age, storm, fire or other injury may be removed.
- b. Clearing and grading shall be limited outside the defined limits of disturbance. Clearing shall be allowed only to provide public roads, necessary access, positive site drainage, water quality BMPs, and the installation of utilities, as approved by the zoning administrator.
- c. Prior to clearing or grading, suitable protective barriers, such as safety fencing, shall be erected at the drip line of any tree or stand of trees to be preserved. These protective barriers shall remain

- so erected throughout all phases of construction. The storage of equipment, materials, debris, or fill shall not be permitted within the area protected by the barrier.
- (3) Land development shall minimize impervious cover to promote infiltration of stormwater into the ground consistent with the use or development permitted.
- (4) Notwithstanding any other provisions of this division, or any exceptions or exemptions thereto, any land disturbing activity exceeding 2,500 square feet, including construction of all single-family houses, septic tanks, and drainfields, shall comply with the requirements of the chapter 110, division 12, Erosion and sediment control.
- (5) All on-site sewage disposal systems not requiring a VPDES permit shall be pumped out at least once every five years. However, owners of on-site sewage treatment systems may submit documentation every five years, certified by a sewage handler permitted by the Virginia Department of Health, that the septic system has been inspected, is functioning properly, and the tank does not need to have the effluent pumped out of it.
- (6) A reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site shall be provided. This requirement shall not apply to any lot or parcel recorded prior to October 1, 1989, if such lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local health department. Building or construction of any impervious surface shall be prohibited on the area of all sewage disposal sites or on an on-site sewage treatment system that operates under a permit issued by the state water control board until the structure is served by public sewer.
- (7) For any development or redevelopment, stormwater runoff shall be controlled by the use of best management practices consistent with the water quality protection provisions (4 VAC 3-20-71 et seq.) of the Virginia Stormwater Management Regulations that achieve the following:
- a. For development, the post-development non-point source pollution runoff load shall not exceed the pre-development load based upon the city's average land cover condition of 45 percent;
- b. For redevelopment, the non-point source pollution load shall be reduced by at least ten percent. However, in no case shall redevelopment be required to reduce impervious surface below the city's 45 percent average land cover condition. The zoning administrator may waive or modify this requirement for redevelopment sites that originally incorporated best management practices for stormwater runoff quality control provided the following provisions are satisfied:
- 1. In no case may the post development non-point source pollution runoff load exceed the predevelopment load;
- 2. Runoff pollution loads shall have been calculated and the BMPs selected for the express purpose of controlling non-point source pollution;
- 3. If best management practices are structural, evidence shall be provided that facilities are currently in good working order and performing at the design levels of service. The zoning administrator may require a review of both the original structural design and maintenance plans to verify this provision. A new maintenance agreement may also be required to ensure compliance with this division.
- 4. Facilities provided to reduce non-point source pollution in runoff shall be provided onsite; however, the director of public works may approve the payment of a fee to the city in lieu of onsite detention. Such fee shall be used for the construction and/or maintenance of one or more public facilities to be located at the discretion of the city. The amount of the fee shall be based on the projected nutrient load from the development site, the cost of design and construction of the facility, any land acquisition costs and facility maintenance.

- c. For redevelopment, both the pre and post development loadings shall be calculated in accordance with the procedures outlined in the current edition of the Virginia Stormwater Management Handbook. However, where design data are available, the original post-development non-point source pollution loadings may be substituted for the existing development loadings.
- (8) Prior to initiating grading or other on-site activities on any portion of a lot or parcel, all wetlands permits required by federal, state and local laws and regulations shall be obtained and evidence of such submitted to the zoning administrator in accordance with the development review procedures outlined in section 110-86.
- (c) *Performance criteria for resource protection areas*. The following criteria shall apply specifically within resource protection areas and supplement the general performance criteria contained in section 110-84:
- (1) All redevelopment activities shall conform to the regulations contained in article II, division 2, Floodplains; Division 11, Storm Drainage Facilities; and division 12, Erosion and Sediment Control; of this chapter as well as the criteria for redevelopment in subsection 110-84(b)(7). Redevelopment shall be permitted in the resource protection area only if there is no increase in the amount of impervious cover within the RPA and no further encroachment within the RPA.
- (2) A water quality impact assessment shall be required for any proposed development in accordance with section 110-85.
- (d) *Buffer area requirements*. To minimize the adverse effects of human activities on the core components of resource protection areas, state waters, and aquatic life, a 100-foot buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff shall be retained if present and established where it does not exist. The 100-foot buffer area shall be deemed to achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients.

The buffer area shall be maintained to meet the following additional performance standards:

- (1) In order to maintain the functional value of the buffer area, indigenous vegetation may be removed only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices (including those that prevent upland erosion and concentrated flows of stormwater), as follows:
- a. Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff;
- b. Any path shall be constructed and surfaced so as to effectively control erosion;
- c. Dead, diseased, or dying trees or shrubbery and noxious weeds (such as Johnson grass, kudzu and multi-flora rose) may be removed and thinning of trees may be allowed with approval of the zoning administrator in accordance with section 110-254, Diseased or dangerous trees; and
- d. Trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.
- (2) When the application of the buffer areas would result in the loss of a buildable area on a lot or parcel recorded prior to October 1, 1989, the zoning administrator may permit encroachments into the required buffer area pursuant to section 110-89, Administrative waivers and special exceptions, and in accordance with the following provisions:
- a. Encroachments into the buffer areas shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;

- b. Where practicable, a vegetated area shall be established elsewhere on the lot or parcel in a manner that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is equal to the area of encroachment into the buffer area; and
- c. In no case shall the encroachment extend into the seaward 50 feet of the buffer area.
- (3) When the application of the buffer area would result in the loss of a buildable area on a lot or parcel recorded between October 1, 1989 and November 25, 2003, the zoning administrator may permit encroachments into the required buffer area pursuant to section 110-89, Administrative waivers and special exceptions, and in accordance with the following provisions:
- a. The lot or parcel was created as a result of a legal process conducted inconformity with the city's subdivision regulations;
- b. Conditions or mitigation measures imposed through a previously-approved exception shall be met:
- c. If the use of a best management practice was previously required, the BMP shall be evaluated to determine if it continues to function effectively and, if necessary, the BMP shall be reestablished or repaired and maintained as required;
- d. The criteria listed in subsection 110-84(d)(2) shall be satisfied. (Ord. No. 2003-22, 11-25-2003)

## Sec. 110-85. Water quality impact assessment.

- (a) Purpose and intent. The purpose of the water quality impact assessment is to:
- (1) Identify the impacts of proposed development on water quality and lands within resource protection areas;
- (2) Ensure that, where redevelopment does take place within resource protection areas, it is located on those portions of a site and in a manner that is least disruptive to the natural functions of resource protection areas; and
- (3) Specify mitigation to address water quality protection.
- (b) Water quality impact assessment required. A water quality impact assessment shall be submitted for:
- (1) Any proposed land disturbance, development or redevelopment within a resource protection area including any buffer area modification or reduction as provided for in section 110-84; or
- (2) Any proposed development or redevelopment in the resource management area that may significantly impact water quality due to the unique characteristics of the site or intensity of the proposed use or development. The zoning administrator may waive this requirement as stated in subsection 110-80(d).

There shall be two levels of water quality impact assessment: a minor assessment and a major assessment.

- (c) *Minor water quality impact assessment*. A minor water quality impact assessment pertains only to development resulting in no more than 5,000 square feet of land disturbance, or development that encroaches onto the landward 50 feet of the 100-foot buffer area. The calculations of a minor assessment will demonstrate that the remaining buffer area and necessary best management practices will result in removal of no less than 75 percent of sediments and 40 percent of nutrients from post development stormwater runoff. A minor assessment shall include site drawing to scale that shows the following:
- (1) Location of the components of any RPA, including the 100-foot buffer area;

- (2) Location and nature of the proposed improvements, including: type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drainfield sites;
- (3) Type and location of proposed best management practices to meet the required general performance standards specified in section 110-84.
- (4) Location of existing vegetation on site, including the number and type of trees and other vegetation to be removed in the buffer to accommodate the encroachment or modification; and
- (5) A revegetation plan that supplements the existing buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control.
- (d) *Major water quality impact assessment*. A major water quality impact assessment shall be required for any development that exceeds 5,000 square feet land disturbance or that encroaches onto the seaward 50 feet of the 100-foot buffer area; or is located in the resource management area and is deemed necessary by the zoning administrator.

The information required in this section shall be considered a minimum, unless the zoning administrator determines that some of the elements are unnecessary due to the scope and nature of the proposed use and development of land.

The following elements shall be included in the preparation and submission of a major water quality impact assessment:

- (1) All of the information required in a minor water quality impact assessment, as specified in subsection (c) above;
- (2) A hydro geological element that describes existing topography, estimates of soils characteristics and potential for erosion, hydrology of the area, impacts on wetlands and streams, proposed mitigation measures, and a listing of requisite permits with permit or application status.
- (3) A landscape element that fully describes existing trees required to be identified as part of a tree-management plan in accordance with subsection 110-252(c); limits of clearing and grading; trees and indigenous vegetation that are to be preserved within the disturbed area; measures to be taken to protect vegetation, proposed plantings, and other vegetative measures used to enhance water quality; and a proposed construction schedule that includes all activities related to clearing, grading, and proposed plantings; and
- (4) Such other measures as deemed necessary by the zoning administrator to ensure the impact to water quality can be accurately predicted.
- (e) Submission and review requirements.
- (1) Copies of all site drawings and other applicable information as required by subsections (c) and (d) above shall be submitted to the zoning administrator for review and approval.
- (2) All information required in this section shall be certified as complete and accurate by a class IIIB certified land surveyor and a professional wetlands expert.
- (3) Water quality impact assessments shall be prepared and submitted to the zoning administrator in conjunction with the development review procedures outlined in section 110-86.
- (4) As part of any major water quality impact assessment submittal, the zoning administrator may require review and written comments by the Chesapeake Bay local assistance department (CBLAD). The zoning administrator should incorporate comments made by CBLAD into the final review of the major water quality impact assessment.
- (f) Evaluation procedure.
- (1) Upon the completed review of a minor water quality impact assessment, the zoning administrator shall determine if any proposed modification or reduction to the buffer area is

consistent with the provisions of this division and make a finding based upon the following criteria:

- a. The proposed encroachment is necessary and there is no other location on site to place improvements without disturbing the buffer area;
- b. The impervious surface is minimized;
- c. The proposed best management practices, where required, achieve the requisite reductions in pollutant loadings;
- d. The development, as proposed, meets the purpose and intent of this division;
- e. The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality; and
- f. Any other information deemed necessary by the zoning administrator.
- (2) Upon the completed review of a major water quality impact assessment, the zoning administrator shall determine if the proposed development is consistent with the purpose and intent of this division and make a finding based upon the following criteria:
- a. The disturbance of any wetlands is minimized;
- b. The development will not result in significant disruption of the hydrology of the site;
- c. The development will not result in significant degradation to aquatic life;
- d. The development will not result in unnecessary destruction of plant materials on site;
- e. Proposed erosion and sediment control concepts are adequate to achieve the reductions in runoff and prevent offsite sedimentation;
- f. Proposed stormwater-management measures are adequate to control the stormwater runoff to achieve the required performance standard for pollutant control;
- g. Proposed revegetation of disturbed areas will provide optimum erosion and sediment control benefits;
- h. The design and location of any proposed drainfield will be in accordance with the general performance standards outlined in section 110-84;
- i. The development, as proposed, is consistent with the purpose and intent of this division;
- j. The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.
- (3) The zoning administrator may require additional mitigation measures where potential impacts have not been adequately addressed. Evaluation of mitigation measures will be made by the zoning administrator based on the criteria listed above in subsections (1) and (2).
- (4) The zoning administrator shall find the proposal to be inconsistent with the purpose and intent of this division when the impacts created by the proposal cannot be mitigated. (Ord. No. 2003-22, 11-25-2003)

#### Sec. 110-86. Development review procedures.

- (a) *Generally*. Any land disturbance, development, or redevelopment with land disturbing activity exceeding 2,500 square feet shall comply with the development review procedures outlined herein, where applicable, prior to any clearing, grading or construction on the site.
- (b) *Required information*. The following plans or studies shall be submitted, unless otherwise provided for:
- (1) If applicable, a subdivision or site plan submitted in accordance with the provisions of chapter 86, Subdivisions, and chapter 110, Zoning, of the City Code;

- (2) A RPA site-specific study as provided for in subsection 110-86(c) of this division;
- (3) If applicable, a water quality impact assessment as required in section 110-85;
- (4) A tree-management plan consistent with the provisions of chapter 110, division 10, Tree preservation, landscaping and screening;
- (5) A stormwater plan consistent with the design and performance standards of chapter 110, division 11, Storm drainage facilities;
- (6) An erosion and sediment control plan consistent with the provisions of chapter 110, division 12, Erosion and sediment control; and
- (7) Copies of all wetlands permits required by law.

The required plans and studies shall include the delineation of the RPA boundary, the delineation of required buffer areas, and a maintenance agreement as deemed necessary by the zoning administrator to ensure proper maintenance of best management practices in order to continue their functions. These required plans and studies may be coordinated or combined as deemed appropriate by the zoning administrator. However, the zoning administrator may also determine that any of the information required in this section may be unnecessary due to the scope and nature of the proposed development.

- (c) *RPA site-specific study*. An RPA site-specific study shall be submitted as part of the development review procedures required by this division and in conjunction with site plan or subdivision approval.
- (1) The RPA site-specific study shall be drawn to scale and clearly delineate the resource protection area components outlined in subsection 110-79(a)(1).
- (2) Wetlands delineations shall be performed consistent with the procedures specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, 1987.
- (3) The RPA site-specific study shall delineate the site-specific geographic extent of the resource protection area.
- (4) The RPA site specific study shall be drawn at the same scale as the site plan or subdivision plan and shall be certified as complete and accurate by a class IIIB certified land surveyor and a professional wetlands expert.
- (d) *Tree-management plan*. A tree-management plan shall be submitted as part of the development review procedures required by this division and shall be prepared in accordance with the requirements set forth in subsection 110-252(c). No clearing, grading, or construction on any lot or parcel shall be permitted without an approved tree management plan.
- In addition to the tree management plan contents required in subsection 110-252(c), the following supplemental information shall be provided for land disturbance, development, or redevelopment activity proposed within the resource protection area:
- (1) Any required buffer area shall be clearly delineated and any plant material to be added to establish or supplement the buffer area, as required by this division, shall be shown on the tree management plan.
- (2) Within the buffer area, trees to be removed for sight lines, vistas, access paths, and best management practices, as provided for in this division, shall be shown on the plan. Vegetation required by this division to replace any existing trees within the buffer area shall also be shown on the tree management plan.
- (3) Trees to be removed for stream bank stabilization projects and any replacement vegetation required by this division shall be shown on the landscaping plan.
- (e) Stormwater plan. A stormwater plan shall be submitted as part of the development review procedures required by this division and in conjunction with site plan or subdivision approval.

- (1) *Contents*. In addition to the design and performance standards outlined in chapter 110, division 11, Storm drainage facilities, the stormwater plan shall contain maps, charts, graphs, tables, photographs, narrative descriptions, explanations and citations to supporting references as appropriate to communicate the information required by this division. At a minimum, the stormwater plan shall contain the following:
- a. Location and design of all planned stormwater control devices;
- b. Procedures for implementing nonstructural stormwater control practices and techniques;
- c. Pre and post development non-point source pollutant loadings with supporting documentation of all utilized coefficients and calculations; and
- d. For facilities, verification of structural soundness, including a professional engineer or class IIIB surveyor certification.
- (2) All engineering calculations shall be performed in accordance with procedures outlined in the current edition of the "Virginia State Stormwater Management Handbook."
- (3) The plan shall establish a long-term schedule for inspection and maintenance of stormwater management facilities that includes all maintenance requirements and persons responsible for performing maintenance.
- (f) *Erosion and sediment control plan*. An erosion and sediment control plan shall be submitted as part of the development review procedures required by this division in conjunction with site plan or subdivision approval that satisfies the requirements of chapter 110, division 12, Erosion and sediment control, of the Code of the city.
- (g) Physical improvements required by this division may be bonded in accordance with sections 86-4 and 110-107 of the Code of the city. (Ord. No. 2003-22, 11-25-2003)

## Sec. 110-87. Nonconforming uses and structures.

- (a) The lawful use of a building or structure that existed on September 17, 1990, or that exists at the time of any amendment to this division, and that is not in conformity with the provisions of this division may be continued in accordance with chapter 110, division 5, Nonconforming uses.
- (b) The zoning administrator may grant an administrative waiver for remodeling or alteration to an existing nonconforming principal or accessory structure provided that:
- (1) There will be no increase in non-point source pollution load; and
- (2) Any development or land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements of this division.
- (c) The zoning administrator may grant an administrative waiver for expansion, restoration or replacement of an existing nonconforming principal structure provided that:
- (1) If a nonconforming structure is destroyed or damaged in any manner, it shall be restored only if such use complies with the requirements of this division. Any such repair or restoration shall be commenced within 12 months and completed within 18 months from the date of destruction. If the repairs are not completed within 18 months of the date of destruction, the applicant shall file a request for an extension with the zoning administrator. Approval of the request will be subject to demonstration by the applicant that reconstruction by the applicant was pursued in good faith.
- (2) The cost of land or any factors other than the cost of the structure are excluded in the determination of cost of restoration for any structure determined to be nonconforming.
- (d) The zoning administrator may grant an administrative waiver only after making the required written findings outlined in subsection 110-89(d).

(e) Administrative waivers shall become null and void 12 months from the date issued if no substantial work has commenced.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-88. Exemptions.

The following uses shall be exempt from the criteria contained in this division:

- (a) Construction, installation, operation and maintenance of electric, natural gas, fiber-optic, telephone transmission lines, railroads, public roads, public trails, and their appurtenant structures; provided that said construction, installation, operation and maintenance is in accordance with the Erosion and Sediment Control Law (Code of Virginia, § 10.1-560 et seq.) and the Stormwater Management Act (Code of Virginia, § 10.1-603.1 et seq.). An erosion and sediment control plan and a stormwater management plan approved by the state department of conservation and recreation, or local water quality protection criteria at least as stringent as the above state requirements shall be deemed to constitute compliance with this provision. The exemption of public roads is further conditioned on the optimization of the road alignment and design, consistent with other applicable requirements, to prevent or otherwise minimize both encroachment into the RPA and adverse effects on water quality.
- (b) Construction, installation and maintenance of water, sewer, natural gas, and underground telecommunications and cable television lines [owned, permitted, or both, by the city or regional service authority], provided that:
- (1) Such utilities and facilities shall be located outside the RPA to the degree possible;
- (2) No more land shall be disturbed than is necessary to provide for the proposed utility installation;
- (3) All construction, installation and maintenance of such utilities and facilities shall be in compliance with all applicable state and federal permits and designed and conducted in a manner that protects water quality; and
- (4) Any land disturbance exceeding an area of 2,500 square feet complies with all erosion and sediment control requirements.
- (c) The following land disturbances within the RPA shall be exempted from this division: (i) water wells; (ii) passive recreation facilities, such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities, provided that it is demonstrated to the satisfaction of the zoning administrator that:
- (1) Any required permits, except those to which this exemption specifically applies, shall have been issued:
- (2) Sufficient and reasonable proof is submitted that the intended use will not deteriorate water quality;
- (3) The intended use does not conflict with nearby planned or approved uses; and
- (4) Any land disturbance exceeding an area of 2,500 square feet shall comply with all city erosion and sediment control requirements.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-89. Administrative waivers and special exceptions.

- (a) *Administrative waivers*. The following administrative waivers may be granted by the zoning administrator:
- (1) Encroachments into the landward 50 feet of the buffer component of the RPA, provided that the requirements of subsections 110-84(d)(2) or (3) and 110-85(f) are met;

- (2) Remodeling and alterations to existing nonconforming principal or accessory structures, provided that the requirements of subsection 110-87(b)(1) are met;
- (3) Restoration or replacement of existing nonconforming principal or accessory structures provided that the requirements of subsection 110-87(b)(2) are met; or
- (4) Modifications and additions to existing legal principal structures provided the findings of subsection 110-89(d) are made.
- (b) *Special exceptions*. Special exceptions to the general performance criteria for resource management and resource protection areas detailed in section 110-84 may be granted by the city council provided the findings of subsection 110-89(d) are made.
- (c) [Exceptions.] Administrative waivers and special exceptions may not be granted for new accessory structures.
- (d) *Required findings*. In granting an administrative waiver or a special exception, the zoning administrator or the city council shall make a written finding that:
- (1) The request is the minimum necessary to afford relief;
- (2) Granting the request will not confer upon the applicant any special privileges that are denied by this division to other property owners who are subject to its provisions and who are similarly situated;
- (3) The request is in harmony with the purpose and intent of this division and is not of substantial detriment to water quality;
- (4) The request is not based upon conditions or circumstances that are self-created or self-imposed; and
- (5) Reasonable and appropriate conditions shall be imposed, as warranted, that will prevent the allowed activity from causing a degradation of water quality.
- (e) Administrative waiver process.
- (1) The applicant shall submit an administrative waiver request to the zoning administrator. The request shall identify the potential impacts of the waiver on water quality and on lands within the resource protection area through the performance of a water quality impact assessment that complies with the provisions of section 110-85.
- (2) The zoning administrator shall review the administrative waiver request and the water quality impact assessment and may grant the waiver with such conditions and safeguards as deemed necessary to ensure and further the purpose and intent of this division.
- (3) If the zoning administrator cannot make the required findings or denies the administrative waiver request, the zoning administrator shall provide written findings and rationale for the decision to the applicant. Denial by the zoning administrator may be appealed to the board of zoning appeals pursuant to section 110-1105.
- (f) Special exception process.
- (1) The applicant shall submit a special exception request to the zoning administrator. The request shall identify the potential impacts of the special exception request on water quality and on lands within the resource protection area through the performance of a water quality impact assessment that complies with the provisions of section 110-85.
- (2) Each special exception request shall be reviewed by the zoning administrator and scheduled for public hearing before the city council following notification of the affected public of any such exception requests in accordance with Code of Virginia, § 15.2-2204, except that only one hearing shall be required.
- (3) The city council shall review the special exception request and the water quality impact assessment and may grant the special exception with such conditions and safeguards as deemed

necessary, pursuant to section 110-366, to ensure and further the purpose and intent of this division, provided the findings of subsections 110-89(d)(1) through (5) are met. (Ord. No. 2003-22, 11-25-2003)

## Sec. 110-90. Violations and penalties.

- (a) The decisions of all departments, officials and public employees of the city that are vested with the duty or authority to issue permits or licenses shall conform to the provisions of this division. They shall issue permits for uses, buildings or purposes only when they are in harmony with the provisions of this division. Any such permit, if issued in conflict with the provisions of this division, shall be null and void.
- (b) The zoning administrator is granted all necessary authority on behalf of the city council to administer and enforce this division, including the authority in righting or remedying any condition found in violation of this division, and the bringing of legal action to secure compliance with this division, including injunctive abatement, the imposition of civil penalties, or other appropriate action or proceeding.

(Ord. No. 2003-22, 11-25-2003)

## Sec. 110-91. Appeals.

Any order, determinations or decision made by the zoning administrator in administration and enforcement of the provisions of this division may be appealed to the board of zoning appeals where it is alleged that an error occurred. Such appeal shall be made within 30 days from the date of the order, determination or decision and shall further state with particularity the grounds of such appeal. Appeals shall further be made in accordance with section 110-1105 of the Code of the city and Code of Virginia, § 15.1-2311.

(Ord. No. 2003-22, 11-25-2003)

Secs. 110-92--110-100. Reserved.

## DIVISION 2. FLOODPLAINS.\*

\*Editor's note: Ord. No. 2003-6, adopted Feb. 11, 2003, amended div. 2 in its entirety and enacted similar provisions as set out herein. The former div. 2 derived from Code 1978, §§ 26-15-26-17.1.

#### Sec. 110-56. Purpose.

These regulations are established to protect against loss of life, health or property from flood; to permit alterations to developed sites and structures located within the floodplain in a manner consistent with appropriate floodplain management practices and this division; and to otherwise preserve and protect floodplains in a natural state, where possible, for the preservation of wildlife habitats, the maintenance of the natural integrity and function of streams and the protection of water quality.

(Ord. No. 2003-6, 2-11-2003)

#### Sec. 110-57. General provisions.

- (a) Application and construction of division. The provisions of this division shall apply to all land located within a floodplain as defined in section 110-4. These provisions shall not be construed to permit the alteration of floodplain boundaries except as provided in subsections (d) and (e).
- (b) *Compliance*. No building or structure or addition to any existing building or structure increasing its outside perimeter or any other construction, excavation, or any other development shall be erected in or over the floodplain except in compliance with the provisions of this division. This division shall be applied in addition to all other applicable federal, state and local statutes, laws, ordinances and regulations. Where such statutes, laws, ordinances and regulations conflict, the more restrictive shall prevail. For the purposes of this section, "development" shall mean any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other construction, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- (c) *Permit required.* No person shall use any floodplain without first having secured a floodplain permit from the zoning administrator. A floodplain permit shall be issued by the zoning administrator after an application has been submitted along with any documentation required by the zoning administrator and a fee in accordance with the schedule of fees adopted by the city council. All applications for development in the floodplain district and all floodplain permits issued for the floodplain shall incorporate the following information: for structures to be elevated, the elevation of the lowest floor (including basement); for structures to be flood proofed (nonresidential only), the elevation to which the structure will be flood proofed. The zoning administrator shall issue such permit only after he is satisfied that such use complies with the requirements of this division.
- (d) *Modification of boundaries*. The city council may modify the boundaries of the floodplain in accordance with the procedures established for zoning map amendments contained in section 110-5. Any such modification shall be based upon hydrologic and hydraulic analyses performed by an engineer who shall certify that the technical methods used correctly reflect accepted engineering design methods. Prior to any such modification, approval shall be obtained from the Federal Emergency Management Agency.

- (e) *Interpretation of boundaries; appeal to board of zoning appeals.* The zoning administrator shall be responsible for the interpretation of floodplain boundaries and may approve minor refinements after consulting with the city engineer to more accurately determine the true location of such boundaries. Such approval shall be based on hydrologic and hydraulic analyses performed by an engineer, who shall certify that the technical methods used correctly reflect accepted engineering design methods. The determination of the floodplain boundary by the zoning administrator may be appealed by an aggrieved party to the board of zoning appeals pursuant to section 110-1102.
- (f) Liability of city. The approval of any floodplain development shall not constitute a representation, guarantee or warranty of any kind by the city or any board, commission, agent or employee thereof of the practicability or safety of any proposal and shall create no liability on the part of or give cause for any action against said bodies or individuals for any loss or damage that may result therefrom. In addition, approval of any use or development within the floodplain shall not be construed as creating an obligation or need for the expenditure of public funds to construct, maintain or remove public or private drainage systems.

(Ord. No. 2003-6, 2-11-2003; Ord. No. 2006-6, 5-9-2006)

#### Sec. 110-58. Permitted uses.

The following uses shall be permitted within the floodplain by right or with a special use permit, as specified; provided, that such uses are permitted in the zoning district within which they are located, the review criteria contained in section 110-59 are met, and a floodplain permit is obtained as specified in subsection 110-57(c).

- (1) By right.
- a. Utilities and public facilities and improvements such as streets, channel improvements, bridges, utility pipes, utility transmission lines and stormwater management facilities shall be permitted.
- b. The following uses and improvements shall be permitted by right, provided that the development or use is otherwise permitted in this chapter and that the area of impervious surface shall not exceed 2,500 square feet and such uses or improvements shall not contain areas of fill in excess of 12 inches in depth:
- 1. Agricultural uses such as farming, gardening, grazing and similar uses.
- 2. Outdoor recreational uses such as parks, trails, picnic grounds, athletic fields, play grounds, golf courses, tennis courts and archery ranges; provided, however, that the use, parking or storage of recreational vehicles (RVs) shall be prohibited within any of the areas identified as "flood areas" on the adopted FEMA flood insurance rate map for the city.
- (2) With special use permit. The following uses and improvements shall be permitted with a special use permit issued by city council in accordance with the provisions of section 110-366, provided that such use is permitted in the zoning district in which the proposed use or improvement is located:
- a. *Area specified*. The uses permitted by right specified in subsection (1)b. where the area of impervious surface will exceed 2,500 square feet or such uses or improvements will contain areas of fill in excess of 12 inches in depth.

b. *Redevelopment of property*. For the purposes of this division, redevelopment shall be any reconstruction, conversion, structural alteration, relocation or enlargement of any structure or any extension of the use of the land. No redevelopment shall be permitted in any floodplain until the developer submits to the zoning administrator a study performed by an engineer which addresses the review criteria contained in section 110-59. Redevelopment shall only be permitted if construction techniques are employed which flood proof each structure located within the floodplain in accordance with the National Flood Insurance Program, Uniform Statewide Building Code flood proofing standards and all other applicable requirements. Within zone AO the underside of the lowest floor (including basement) of any structure shall be a minimum of three and one-half feet above the highest adjacent grade. In addition, the underside of the lowest floor (including basement) of any structure shall be a minimum of 18 inches above the floodplain elevation. For the purposes of this section, "basement" shall mean any area of the building having its floor subgrade (below ground level) on all sides. Furthermore, the "lowest floor" shall mean the lowest floor of the lowest enclosed area (including basement).

(Ord. No. 2003-6, 2-11-2003; Ord. No. 2006-6, 5-9-2006)

#### Sec. 110-59. Review criteria.

Permitted uses, activities or developments (including redevelopments) within the floodplain shall be permitted only when all available alternative locations not within the floodplain have been properly considered and it is not possible to accommodate reasonable development outside the floodplain boundaries. Each application for a floodplain permit, together with required supporting documentation, shall clearly demonstrate that the proposed use, activity or development:

- (1) Shall minimize grading to the maximum possible extent.
- (2) Shall minimize the amount of impervious surface to the maximum possible extent through site design, the use of porous construction materials, grid or modular pavement, and other reasonable methods.
- (3) Shall minimize the loss of natural vegetation and natural stormwater characteristics.
- (4) Shall minimize the susceptibility of structures and their contents to flood damage.
- (5) Shall not negatively affect water quality.
- (6) Shall not increase the intensity or extent of flooding of lands above or below the property or jeopardize property or human life.
- (7) Shall not adversely affect the capacity of the floodplain channel or increase erosion within or adjacent to the floodplain. Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within the city all applicable permits shall be obtained from the U.S. Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission. Furthermore, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions, the Department of Conservation and Recreation, and the Federal Insurance Administration.
- (8) Shall minimize negative impacts upon wildlife habitat.
- (9) Shall have its design incorporate base (100-year) flood elevation data for any proposed new activity or development greater than 50 lots or five acres, whichever is the lesser, if located within zone A. In addition, the best available floodway information from federal, commonwealth, or other sources acceptable to the zoning administrator shall be used.
- (10) Shall not result in more than a one-foot increase in the base (100-year) flood elevation. This shall include the cumulative effect of the proposed use, activity, or development when combined with all other existing and anticipated uses, activities, or development.

(11) Shall not negatively affect drainage. (Ord. No. 2003-6, 2-11-2003; Ord. No. 2006-6, 5-9-2006)

## Sec. 110-60. Special exceptions.

- (a) The board of zoning appeals may, by special exception, permit within the floodplain additional uses where such uses are not permitted uses specified in section 110-58, provided that:
- 1. Such additional use is permitted in the underlying zoning district;
- 2. Special exceptions shall be granted only in accordance with the procedures and limitations established for special use permits in section 110-366; and
- 3. The special exception granted represents the minimum variation necessary to afford relief.
- (b) In reviewing a special exception request, the board shall consider the following additional factors:
- 1. The danger to life and property due to increased flood heights or velocities caused by encroachments. No special exception shall be granted for any proposed use, development, or activity within any floodway that would cause any increase in the 100-year flood elevation.
- 2. The compatibility of the proposed use with existing development and nearby development anticipated in the foreseeable future.
- 3. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- 4. For historic structures, a determination that the exception is the minimum necessary to preserve the historic character and design of the structure and would not preclude the structure's continued designation as a historic structure.
- (c) A special exception shall be granted only after the board of zoning appeals has determined that the granting of such would not (i) result in unacceptable or prohibited increases in flood heights, (ii) pose additional threats to public safety, (iii) require extraordinary public expense, (iv) create any nuisances, (v) cause fraud or victimization of the public, and (vi) conflict with local laws or ordinances. Special exceptions shall be granted only after the board of zoning appeals has determined that a special exception would be the minimum required to provide relief from any hardship to the applicant.
- (d) The board of zoning appeals shall notify, in writing, the applicant for a special exception request that the issuance of a special exception to construct a structure below the 100-year flood elevation (i) increases the risks to life and property and (ii) may result in increased premium rates for flood insurance.
- (e) A record shall be maintained of the above notification as well as all special exception actions, including justification for the issuance of the special exceptions. The annual or biennial report submitted to the federal insurance administrator shall note any special exceptions which are issued during the period covered by the report.

Secs. 110-61--110-75. Reserved.

## SEC. 110-281. PURPOSE OF DIVISION. (STORM DRAINAGE)

It is the purpose of this division to define those storm drainage facilities which must be provided by landowners to control rainfall runoff from and across their property in a manner not detrimental to other inhabitants of the city and to preserve, where possible, presently existing natural creek channels. It is the further purpose of this division to minimize the adverse effects of stormwater runoff on downstream drainageways within the city. (Code 1978, § 26-72)

#### Sec. 110-282. Definitions.

For the purposes of this division, the following words and phrases shall have the meanings respectively ascribed to them by this section:

*Design storm* means all possible combinations of particular storm intensity-duration events occurring on the design storm curve.

*Maximum peak runoff* means the largest peak runoff which can occur from any of the particular storms on the design storm curve.

Metering means the controlled release of water into the primary drainage system.

Municipal detention facilities means municipally-owned facilities located along primary drainage facilities. Creeks or channels which serve the purpose of reducing peak flow by metered release and by storage of that input flow which exceeds the metered output.

On-site detention facility means a facility located on a site which serves the purpose of collecting and detaining rainfall falling on the site for controlled release to the primary facilities as a result of land alteration.

On-site drainage facility means a facility located on a site which serves the purpose of collecting rainfall falling on the site and routing it to primary drainage facilities, creeks or channels. On-site retention facility means the same as on-site detention facility except that the lower elevation of the pond may be at a level lower than the normal hydraulic grade line of the drainage system into which it drains. Water detained in this lower elevation must therefore be dissipated by evaporation into the atmosphere or seepage into the soil.

*Peak runoff* means the largest runoff intensity which will occur from a particular storm intensity-duration event on the design storm curve.

*Primary creeks and channels* means natural creeks and open channels located on either private or public property which serve the purpose of collecting rainfall runoff from other sites and routing it from the city to the rivers. A creek or channel shall be considered a primary facility if it accommodates a runoff flow of at least 1.5 times that amount originating from the site on which it is located

*Primary drainage facilities* means culverts, gutters, enclosed channels, etc., which serve the purpose of collecting rainfall runoff from other sites and routing it to primary creeks and channels. Drainage facilities shall be considered as primary if they accommodate a flow of at least 1.5 times that amount originating from the site on which they are located.

(Code 1978, § 26-73)

**Cross references:** Definitions generally, § 1-2.

#### Sec. 110-283. Performance standards for facilities.

Facilities shall be designed and maintained in such a manner as to minimize economic and environmental costs to the city and its inhabitants. Ponding facilities for the detention and retention of stormwater runoff shall have sufficient capacity to safely pass flood flows from a 24-hour storm, caused by the most severe combination of critical meterologic and hydrologic conditions considered to be reasonably characteristic or possible in the area. The time distribution of rainfall during the 24-hour period shall be arranged in such a manner as to maximize stormwater runoff. Standard engineering safety factors will be observed as minimum requirements in the design of all detention and retention facilities. Nothing in this section will prevent the city from applying more restrictive criteria to the design of any and all facilities for the detention or retention of stormwater runoff. This requirement will be met if facilities perform as specified under the worst combinations of the specified design storm as defined in the city drainage facility specifications.

TABLE INSET:

Usage	Performance Requirement	Design Storm
On-site drainage	Section 110-284	Detention storm
Streets, gutters and inlets	Section 110-284	10-year storm
Culverts/storm sewers	Section 110-284	100-year storm*
Channels	Section 110-284	100-year storm
Creek detention	Section 110-284	100-year storm
On-site detention	Section 110-284	100-year storm

<sup>\*</sup> In the absence of potentially damaged private or public property the 25-year design storm shall be used as a minimum.

(Code 1978, § 26-74)

#### Sec. 110-284. Performance requirements.

- (a) *On-site drainage*. On-site drainage shall be adequate to prevent flooding or damage to any structure located on the site.
- (b) *Gutters and inlets*. Gutters and inlets shall be adequate to limit the spread of water in the street to ten feet.
- (c) *Primary drainage facilities*. Where culverts, storm sewers or other enclosed conduits have been approved for use by the director of public works or his designee as storm drainage transport they shall, in addition to meeting other requirements, be adequate in the opinion of the director of public works or his designee to prevent flood damage to private or public property. Conduits used in conjunction with gutters and inlets shall be adequate to limit the system hydraulic grade line to no higher than one foot below the grade of the gutter.
- (d) *Channels*. Where primary channels or other open conduits have been approved for use by the director of public works or his designee as storm drainage transports they shall, in addition to

meeting other requirements, be adequate in the opinion of the director of public works or his designee to prevent flooding outside of any floodplain area designated in this chapter.

- (e) *Creek detention systems*. These systems shall have adequate capacity and metering to prevent flooding and flood damage outside the floodplain area as designated in this chapter. Where creek detention is to be utilized in order to solve an existing flooding problem within the floodplain, the city engineer may specify increased capacity and lower release rates.
- (f) *On-site detention systems*. On-site detention systems are used to offset the loss of natural water detention and natural metering caused by land alteration. The system shall have adequate capacity and metering to limit the maximum runoff from the site after land alteration to a value no greater than that which existed before the alteration for the specified design storm. (Code 1978, § 26-75)

## Sec. 110-285. Design, construction, inspection and maintenance requirements.

Design, construction, inspection and maintenance requirements shall be as defined in the city storm drainage facility specifications as they may be hereafter promulgated by the city engineer and approved by the city council from time to time. (Code 1978, § 26-76)

## Sec. 110-286. Usage, improvement and preservation of creeks and channels.

- (a) Natural creeks and drainage channels shall be used where available to route stormwater runoff from the city.
- (b) Natural drainage systems will be improved where necessary to meet the specified performance standards for land conditions which existed as of September 17, 1974. To the maximum degree possible, these improvements shall be made in such a manner as to preserve, enhance or restore the vegetation, including trees, along the creek line so that the aesthetic, environmental and ecological values of the vegetation are not lost to the community.
- (c) Where land alteration after September 17, 1974, will result in increased runoff, detention or retention ponds must be provided so that such additional runoff will not appreciably increase the load on the existing storm drainage system. (Code 1978, § 26-77)

#### Sec. 110-287. Landowner's duties and responsibilities.

- (a) Land alteration resulting in same or less runoff than for September 17, 1974 usage. The landowner shall provide on-site drainage facilities where necessary to channel rainfall from the landowner's property to existing natural drainage streams or city-owned drainage systems. The design and construction of such facilities shall be in accordance with the city storm drainage facility specifications as they may be hereafter promulgated by the city engineer and approved by the city council from time to time.
- (b) Land alteration resulting in greater runoff than September 17, 1974 usage. The landowner shall provide on-site detention, on-site drainage, or retention pond facilities in accordance with the city storm drainage facility specifications as they may be hereafter promulgated by the city engineer and approved by the city council from time to time. Retention ponds will be permitted as an alternative to detention ponds where necessitated by the topography of a particular site and with the approval of the city engineer. Performance standards for retention ponds will be the same as for detention systems. Where on-site detention or retention cannot be practically accomplished the landowner shall as an alternative pay for improvements to those existing drainage systems, as

necessitated by his land alterations. Neither detention nor retention shall be required where land alterations do not increase the runoff more than 15 percent of the runoff existing on the site as of September 17, 1974. In addition, if the area of the site undergoing alteration is less than one acre and such site or lot exists on September 17, 1974, neither detention nor retention shall be required.

- (c) Natural drainage channels on private property. Where natural drainage channels pass through a landowner's property, it shall be the responsibility of the landowner to maintain the natural channel in a manner which will not be detrimental to other inhabitants of the city. No change shall be made in the contours of any land which affects the course, width or elevation of any floodplain or natural or other drainage channel in any manner which will obstruct, interfere with or change the drainage of such land without providing adequate drainage in connection therewith, as approved by the city engineer. The bounds of the natural stream channel are to be considered as extending to the water level identified for the 100 year storm as defined in this chapter. All natural stream modifications and maintenance are to be accomplished in accordance with the city storm drainage facility specifications as they may be promulgated by the city engineer and approved by the city council from time to time.
- (d) Maintenance of on-site drainage facilities.
- (1) The landowner and his successors in title to the facilities and the site served thereby shall be responsible for the repair, replacement and other maintenance of the facility.
- (2) The landowner and his successors shall perform periodic maintenance on the facilities and such other repairs, replacements or maintenance thereon as may be required by the city engineer.
- (3) The city engineer, his agent or representative, may inspect the facilities from time to time to determine the necessity of repair, replacement or other maintenance thereof.
- (4) If the facilities are determined to be in need of repair, replacement or other maintenance, the city engineer, his agent or representative, shall serve on the landowner a written notice describing the condition of the facilities and specifying the required repairs, replacements or other maintenance to be made to correct such deficiencies. Such notice shall require the landowner to comply with the terms thereof within ten days of receipt.
- (5) Any landowner aggrieved by the determination of the city engineer, his agent or representative, may appeal such determination to the city council within ten days of the receipt of notice thereof. Such appeal shall be placed on the agenda for the next public council meeting after notice of the appeal is given.
- (6) Upon refusal or neglect by the landowner or his successors to comply with the repairs, replacements or other maintenance required by the city engineer, the city, through its agents or employees, may repair, replace or otherwise maintain such facilities.
- (7) If the city, through its agents or employees, repairs, replaces or otherwise maintains any facility after complying with the notice requirements of this section, the costs or expenses thereof shall be charged to and paid by the landowner and/or his successors and may be collected by the city as taxes and levies are collected.
- (8) Every charge authorized by this section with which the landowner or his successors has been assessed and which remains unpaid shall constitute a lien against the property. (Code 1978, § 26-78)

## Sec. 110-288. City responsibilities.

- (a) *City-owned drainage system*. The city shall maintain and control natural drainage systems and other drainage or detention or retention systems which have been constructed by or dedicated to the city. In no event will the city be financially responsible for maintenance of private systems.
- (b) City-owned drainage system development impacted. The city shall specify, design and construct off-site improvements to the storm drainage system when such improvements are made necessary by changes in land use and when additional runoff caused by such changed land use cannot be adequately accommodated by detention or retention systems; such off-site improvements are to be paid for by those landowners whose land alteration made the improvements necessary.

(Code 1978, § 26-79) Secs. 110-289--110-305. Reserved.

## **Subdivision II. Specifications**

## Sec. 110-306. Purpose.

This subdivision specifies design, construction, inspection and maintenance requirements for storm drainage facilities to be used within the city. (Code 1978, § 26-80)

#### Sec. 110-307. Control.

This subdivision is controlled by the department of public works. Revisions are to be promulgated by the director of public works and approved by the city council. (Code 1978, § 26-81)

#### Sec. 110-308. Applicability.

The design, construction, inspection and maintenance of all storm drainage facilities within the city, whether privately or municipally owned, are to be accomplished in accordance with applicable provisions of this subdivision. (Code 1978, § 26-82)

#### Sec. 110-309. Design requirements.

- (a) All facility design computations and drawings must be submitted to the director of public works and approved by him prior to the issuance of building permits or the approval of site plans or subdivision plats.
- (b) A copy of the design documentation will be kept on file by the city staff.
- (c) A record of land use existing on September 17, 1974, and assumed water runoff rate coefficients and stream flows will be maintained by the director of public works and made available for use in facility design. Runoff coefficients used in computation of land alteration drainage impact shall be as set forth in this section or appropriately computed runoff coefficients based on actual site plans and soil conditions. The city engineer will supply estimates of peak runoff and stream flows for use in the design of primary channels, culverts and detention facilities; these values will be based on assumed development in accordance with the comprehensive development plan.

#### TABLE INSET:

Condition	Coeff. C
Undeveloped	.30 (CU)
Single-Family Detached	.51
Planned Development	.60
Multifamily Development	.75
Commercial	.90
Industrial	.75

(Code 1978, § 26-83)

## Sec. 110-310. On-site drainage facilities.

Where on-site drainage facilities are proposed by a developer he shall specify the following:

- (1) Safety factors.
- (2) Material identification.
- (3) Cleaning, maintenance, inspection provisions.
- (4) Design storms shall be specified by the city as set forth in appendix A to the specifications. (Code 1978, § 26-84)

#### Sec. 110-311. On-site detention facilities.

The design of on-site detention facilities or such retention facilities as may be requested or approved by the city shall be as set forth in the following:

- (1) *Design storm.* The design storm used to establish facility sizes shall be as specified in subdivision I of this division and defined by Appendices A and B to the specifications.
- (2) Peak discharge flow. The discharge flow from the facility, when operating at the spillway overflow level (see Appendix C in this division), shall be  $\pm$  ten percent of the maximum peak runoff which would have resulted from the specified design storm and the September 17, 1974 land use.
- (3) *Minimum volume*. The detention volume shall as a minimum be equal to the additional runoff volume from the site caused by the land alteration and the specified design storm. The detention volume shall be computed by the hydrograph method. The design storm shall be the 100-year storm for a six hour duration (5.5 inches).
- (4) *Spillways*. All detention facilities shall contain spillways so designed and constructed as to convey that excess flow which could occur from a standard project storm without damage to the facility or upstream or downstream properties within the city.
- (5) *Structural safety factors*. Standard engineering safety factors are to be applied to all detention facilities.
- (6) *Erosion control*. The proper material for channel linings is to be provided to prevent erosion from the mean design channel velocity.
- (7) *Debris*. Debris is to be removed periodically to maintain efficient hydraulic functioning. Trash racks shall be used.

(Code 1978, § 26-85)

## Sec. 110-312. Municipal creeks and channels.

Design criteria shall be as set forth in section 110-311 where applicable. (Code 1978, § 26-86)

#### Sec. 110-313. Municipal drainage facility.

Design criteria shall be as set forth in section 110-311 where applicable. (Code 1978, § 26-87)

## Sec. 110-314. Municipal detention facilities.

The design of municipal detention facilities shall be as set forth in the following:

- (1) *Design storm.* The design storm used to establish facility sizes shall be as specified in subdivision I of this division and defined by Appendices A and B.
- (2) Peak discharge flow. The discharge flow from the facility, when operating at spillway overflow level, shall be  $\pm$  ten percent of a value specified for the particular facility as the maximum peak runoff flow which will result in a zero damage flood height along the downstream channel. Under no circumstances will this flow exceed the maximum peak runoff which would occur from the specified design storm and the September 17, 1974, land use.
- (3) *Minimum volume*. The detention volume shall as a minimum be equal to the additional runoff volume from the site caused by the land alteration and the specified design storm. The detention volume shall be computed by the hydrograph method. The design storm shall be the 100-year storm for a six-hour duration (5.5 inches).
- (4) Spillways. Same as specified in section 110-311.
- (5) Structural safety factors. Same as specified in section 110-311.
- (6) *Erosion control*. Same as specified in section 110-311. (Code 1978, § 26-88)

#### Sec. 110-315. Construction requirements.

All construction shall conform to the ASTM standards, the state department of transportation road and bridge specifications as amended, and the Virginia Uniform Statewide Building Code, as amended.

(Code 1978, § 26-89)

#### Sec. 110-316. Inspection requirements.

Periodic inspections shall be performed by the city to ensure that the facilities are being built in accordance with the plans and specifications.

(Code 1978, § 26-90)

Secs. 110-317--110-335. Reserved.

## SEC. 110-251. PURPOSE. (TREE PRESERVATION)

The purpose of this division is to encourage the planting and proper care of trees throughout the city, to ensure the preservation of existing trees and the replenishment of tree stock to the maximum extent possible, and otherwise provide for appropriate screening and landscaping. These actions are intended to contribute to the health, safety and welfare of the city by decreasing flooding, soil erosion, air pollution and noise, improving aesthetics and increasing property values. Tree replenishment, performed in accordance with the comprehensive plan and the community appearance plan, will contribute to establishing and reinforcing a positive identity for the city. In addition, the implementation of screening and landscaping requirements will improve compatibility of uses by providing privacy and enhancing the aesthetic transition between uses. (Code 1978, § 26-61)

### Sec. 110-252. Tree removal permit.

- (a) *Permit required.* No person shall remove or destroy any tree which is five inches or greater in caliper, measured six inches above ground level, on any lot larger than one-half acre without first obtaining a tree removal permit from the zoning administrator in accordance with the procedures set forth in this division. Further, no person shall remove or destroy any such tree located in the common open space of any development without first obtaining a tree removal permit.
- (b) *Issuance of permit*. Tree removal permits shall be issued only after the zoning administrator has received the required tree management plan and a completed application for such permit which has been signed by the property owner. In determining whether to grant or deny a permit the zoning administrator shall consider:
- (1) The effect of the proposed tree removal upon the stabilization of soil, lakes, ponds, streams and rivers;
- (2) The intended use of the property and feasible alternatives which would preserve existing trees;
- (3) The existing topography, proposed changes in the topography and proposed landscaping;
- (4) The hardship imposed or the reasonable use denied to the applicant as a result of permit denial:
- (5) Historical value of the trees;
- (6) Good horticultural and forestry practices;
- (7) The effect of the proposed tree removal on the deadening and absorption of sound;
- (8) The likelihood that the proposed action will adversely affect the control of flooding or soil erosion:
- (9) The impact of such action on surrounding property or persons;
- (10) The consistency of the proposed action with the purpose of this division.
- (c) Tree management plan required.
- (1) Any applicant proposing to remove or destroy existing trees in conjunction with any land development activity, including the moving of buildings, shall submit a tree management plan containing such of the following information as deemed necessary by the zoning administrator:
- a. The location, size and species of all trees which are at least five inches in diameter, measured six inches above the ground;
- b. The location, size and species of all trees to be preserved and removed;

- c. Specifications for the removal of trees and protection of trees during construction;
- d. Proposed grade changes or other potentially injurious work adjacent to trees designated for preservation with specifications for maintaining ground drainage and aeration around such trees;
- e. The location, size and species of all trees to be planted;
- f. Such other information that the zoning administrator deems essential.
- (2) Any applicant proposing to remove or destroy existing trees not in conjunction with a land development activity shall submit an application containing that information specified in subsections (c)(1)a. through f. of this section above deemed necessary by the zoning administrator to make the determinations required by subsection (b) of this section. (Code 1978, § 26-62)

#### Sec. 110-253. Acts harmful to trees.

- (a) No person shall abuse, mutilate or otherwise damage any tree located on public property, or any tree protected by section 110-253, including those located in the public right-of-way along street frontages within subdivisions. However, nothing in this division shall be construed to prevent reasonable and proper trimming of trees located on public property by authorized persons in accordance with accepted horticultural practices.
- (b) No person shall attach any sign, notice, placard, electrical wire or other injurious device to any tree, nor shall any person cause any substance harmful to trees to come in contact with them, or prevent water and oxygen from reaching their roots.
- (c) No person shall cover the ground with impervious material any closer to the trunk of a tree than its dripline. This provision may be waived by the zoning administrator if he determines that the proposed action will not harm the tree. (Code 1978, § 26-63)

#### Sec. 110-254. Diseased or dangerous trees.

When the zoning administrator finds that a tree growing on private property creates a hazard which threatens the general public safety or welfare, he shall order the owner to remove the tree or otherwise eliminate the hazardous condition. If the property owner fails to comply with such order within 30 days of notification, or sooner if necessary to protect the public safety, the zoning administrator may enter the property, remove the tree or otherwise mitigate the hazardous condition, and assess the cost thereof against the property owner. (Code 1978, § 26-64)

## Sec. 110-255. Canopy cover required.

Each subdivision or development shall provide for the planting or retention of trees on the site to the extent that, at a maturity of ten years, the minimum lot coverage of the tree canopy shall be as follows:

- (1) Ten percent for a lot within any office, commercial or industrial zoning district;
- (2) Fifteen percent for a site zoned RM or any other residential site zoned greater than ten units per acre;
- (3) Twenty percent for a site zoned R-2, R-3, R-T6, RT or any other residential site zoned three to ten units per acre; and
- (4) Twenty-five percent for a site zoned R-1 or any other residential site zoned less than three units per acre.

(Code 1978, § 26-65)

## Sec. 110-256. Tree protection during development.

During development or razing activity, the builder shall install effective dripline protection around all tree preservation areas, and shall further install tree wells, retaining walls or other structures necessary to protect individual trees designated for preservation. Such protective measures shall be specified on the tree management plan and shall be designed and installed in a manner consistent with good horticultural practices and subject to the approval of the site plan approving agent. To further ensure the survival of trees designated to be preserved, the property owner or his agent shall provide such surety as required in section 110-107 and section 86-4 of this Code. (Code 1978, § 26-66)

## Sec. 110-257. Preservation of special trees.

- (a) Upon the recommendation of the city arborist, the city council may, by ordinance, designate any tree which meets the criteria specified in section 110-4 as a heritage, memorial, designated specimen or street tree. No such designated tree shall be removed, damaged or disturbed in any way unless the city council finds that:
- (1) There is an overriding need for public improvements;
- (2) A severe hardship exists in developing a site; or
- (3) The tree dies, becomes irreversibly diseased or irreversibly damaged by natural causes. In permitting such action, the city council may require that the tree be relocated on-site or to another site designated by the city, or be replaced with a similar tree or trees to approximate the canopy lost.
- (b) The provisions of this section shall not apply to:
- (1) Work conducted on federal or state property;
- (2) Emergency work to protect life, limb or property;
- (3) Routine installation, maintenance and repair of utilities;
- (4) Activities with minor effects on trees including, but not limited to, home gardening and landscaping of individual homes; and
- (5) Commercial silvicultural or horticultural activities including, but not limited to, planting, managing or harvesting forest or tree crops. (Code 1978, § 26-67)

#### Sec. 110-258. Screening required.

(a) In all new developments and redevelopments, screening from adjacent property shall conform to the following standards. The board of architectural review or the city council, in accordance with the provisions of article XIX of this chapter, may authorize deviations from these standards, provided that equal or better screening from adjacent properties is provided and the zoning administrator has approved the proposal.

## CITY OF FAIRFAX STANDARDS FOR SCREENING

#### TABLE INSET:

		Adjacent District													
Proposed Development	R- 1	R- 2	R- 3	R- T6	RT	RM	RPD	P- D	CPD	C- 1L	C- 1	C- 2	C- 3	I- 1	I- 2
R-T6 Townhouse	A	A	A												
RT Townhouse	A	A	A												
RM Multifamily	A	A	A	A	A	A	1	1	1						
RPD Residential Planned Development	2	2	2	2	2	2	2	2	2						
P-D Planned Development	2	2	2	2	2	2	2	2	2						
CPD Commercial Planned Development	2	2	2	2	2	2	2	2	2						
C-1L Limited Office	A	A	A	A	A	A	1	1	1						
C-1 Office Commercial	В	В	В	В	В	A	В	3	3						
C-2 Retail Commercial	В	В	В	В	В	A	В	3	3						
C-3 General Commercial	С	С	С	С	С	С	С	4	4	С	С	С	С	С	
I-1 Industrial	D	D	D	D	D	D	D	5	5	С	С	С	С	С	
I-2 Industrial	D	D	D	D	D	D	D	5	5	D	C	C	C	С	C

- (1) Use screen "A" adjacent to planned development components of equal or lesser density/intensity.
- (2) Screening as approved on the general development plan. Use the relationships established in this matrix as a guideline.
- (3) Use screen "B" adjacent to planned development components of equal or lesser density/intensity.
- (4) Use screen "C" adjacent to planned development components of equal or lesser density/intensity.
- (5) Use screen "D" adjacent to any residential component, use screen "C" otherwise.

GRAPHIC LINK: Screen A
GRAPHIC LINK: Screen B
GRAPHIC LINK: Screen C
GRAPHIC LINK: Screen D

**GRAPHIC LINK:** Required Screening Fences

Required screening fences separating commercial and residential properties shall be eight feet in height. All other required screening fences shall be six feet in height. All fencing shall be constructed of wood supported by decorative masonry piers and shall provide a solid visual screen. Final design shall be subject to the approval of the board of architectural review or the city council in accordance with article XIX of this chapter. Variations to these standards may be authorized by the board of architectural review or the city council upon recommendation of the zoning administrator, provided that the quality of the proposed screening is equal to or better than that illustrated herein.

- (b) Each refuse disposal area shall be completely screened from view on all sides by a wall or fence of board-on-board, decorative masonry or other construction of equal or better quality as approved by the board of architectural review or the city council in accordance with article XIX of this chapter.
- (c) Each above grade mechanical or utility structure shall be screened by a wall or fence as specified in subsection (b) of this section, or by plant material forming a continuous year-round screen, or a combination thereof.

(Code 1978, § 26-68; Ord. No. 2002-3, 1-8-2002; Ord. No. 2004-24, 11-30-2004)

## Sec. 110-259. Parking area landscaping.

- (a) Surface parking areas.
- (1) Perimeter landscaping requirements.
- a. Where parking area is adjacent to right-of-way. Each off-street parking area which is adjacent to a public right-of-way shall be separated from such right-of-way by a landscaped strip of not less than the width of the required building restriction area for the zoning district within which such parking area is located. Such strip shall contain an earthen berm, compact evergreen hedge or an equal or better alternative approved by the director. Landscaping shall be no less than 30 inches in height at the time of installation and mulched to a depth of at least four inches. In addition, such strip shall contain at least one deciduous tree not less than 3 1/2 inches in caliper measured six inches above the ground level for every 500 square feet of required landscaped strip.
- b. Where parking area is not adjacent to public right-of-way. Each off-street parking area not adjacent to a public right-of-way shall be separated from the property line by a landscaped strip of not less than the width of the required setback for the zoning district within which such parking area is located, or 12 feet in width, whichever is less, provided that a minimum of seven feet in width shall be provided. Such landscaped strip shall be planted with at least one deciduous tree meeting the dimensional requirements contained in subsection (a)(1) of this section for every 200 square feet of required landscaped strip. Where this requirement conflicts with the provisions of this division pertaining to required screening between uses, the more stringent requirements shall prevail.
- c. The provisions of the subsection (a)(1) of this section notwithstanding, no more than one deciduous tree shall be required for every 30 linear feet of landscaped strip.

- (2) Interior landscaping requirements.
- a. At least one planting island with minimum dimensions of nine feet by 18 feet shall be provided for every 12 parking or loading spaces proposed. Where the calculation of planting island requirements results in a fraction of an island, the number required shall be the next highest integer.
- b. Not more than 12 parking spaces shall be located consecutively without an intermittent planting island; provided, however, that within townhouse developments, no more than ten parking spaces shall be located consecutively without an intermittent planting island. The provisions of subsection (a)(1) of this section notwithstanding, the applicant may aggregate some or all of the required landscaped islands to preserve existing trees located within such parking area in lieu of providing landscaped islands planted with trees, provided that the aggregate total of internal landscaping shall equal or exceed the landscaped area otherwise required within landscaped islands.
- c. Within parking areas containing more than 25 spaces, planting islands shall be provided at each end of each parking bay to direct the movement of traffic.
- d. Each required planting island shall be landscaped with a deciduous tree which meets the dimensional requirements established in subsection (a)(1) of this section. The type and location of landscaping within a planting island shall be subject to approval by the director.
- e. Shrubs and ground cover shall be installed in each planting island to provide full coverage of the area and placed to complement tree landscaping.
- f. Landscaping material shall be located within planting islands in a manner which will protect the plants from automobile bumpers and allow for the mature size of the species.
- (b) Parking structures.
- (1) Perimeter landscaping requirements. Structured parking which is above finish grade shall comply with building setback requirements. Landscaping for parking structures shall be provided in all yards pursuant to perimeter landscaping requirements for surface parking. However, where the location of such structure with respect to property boundary and adjacent structures will substantially inhibit the growth of the required deciduous trees, such trees may be located along another perimeter of the site in a manner approved by the director.
- (2) *Interior landscaping requirements.*
- a. Interior landscaping requirements shall not apply to the levels of parking structures which are covered by decks or roofs.
- b. Where an uncovered parking structure is proposed, if the parking surface is at grade or up to five feet above finish grade, then the internal landscaping requirements specified for surface parking lots shall apply. However, plant materials such as small trees and shrubs may be substituted for the larger trees required in surface lots, subject to the approval of the director.
- c. Internal landscaping requirements shall not apply where the parking surface of an uncovered parking structure is greater than five feet above finish grade.
- (3) Additional screening required. Appropriate screening in the form of landscaping, decorative fences or architectural walls shall be installed on or adjacent to each parking structure to provide a complete, year-round buffer of exposed motor vehicles from adjacent property.
- (c) *Encroachment upon landscaped strip*. Required landscaped strips shall not be encroached upon by parking or driving surfaces except that driving lanes may traverse such strip in a perpendicular alignment to provide the necessary ingress and egress to the parking areas. In addition, to ensure that no part of any motor vehicle overhangs any required landscaped strip,

concrete bumper blocks shall be provided or the landscaped strip shall be enlarged by two feet in overhang areas.

- (d) *Plant materials*. All plant materials shall be as specified in the community appearance plan, unless otherwise approved by the director.
- (e) *Minor deviations*. Minor deviations from the provisions of this section may be permitted by the zoning administrator, with the concurrence of the board of architectural review or the city council, in accordance with the provisions of article XIX of this chapter, provided that the proposed landscaping provides coverage equal to or greater than that required in this division. (Code 1978, § 26-69; Ord. No. 2004-24, 11-30-2004)

## Sec. 110-260. Additional landscaping required.

Any development or redevelopment of any site located in an area included in the community appearance plan shall incorporate the applicable landscaping improvements identified in that plan. (Code 1978, § 26-70)

## Sec. 110-261. Conflicting provisions.

Where provisions of this chapter dictate conflicting landscaping or screening requirements, the more stringent requirements shall prevail. (Code 1978, § 26-71)

#### Sec. 110-262. Violations.

Violation of any provision of this division shall be punishable as prescribed in section 110-9 provided that a violation of the provisions of section 110-257 shall be punishable by civil penalties not to exceed \$2,500.00 for each offense. The removal or destruction of each tree in violation of the provisions of this division shall be considered a separate offense. (Code 1978, § 26-71.1)

#### Sec. 110-263. Special exceptions.

City council may, upon application of the property owner, grant special exceptions modifying the requirements of this division in accordance with the procedures and limitations established for special use permits in section 110-366. Special exceptions shall be granted only if the applicant has clearly demonstrated a situation of extreme topography, unusual lot shape or extraordinary circumstance. In addition, the requested special exception shall only be granted if the city council finds that the proposed development will not be inconsistent with the comprehensive plan, the community appearance plan and the purpose of this division, and otherwise will not result in inadequate on-site amenity or any condition which will adversely affect nearby property. Requests for special exceptions may be granted in whole, in modified form with conditions or denied by the city council after consideration of the requisites presented in this section. (Code 1978, § 26-71.2)

Secs. 110-264--110-280. Reserved.

## City of Fairfax Digital Data Submission Requirements for GIS

#### **Background:**

The City of Fairfax has developed a geographic information system (GIS) to store, manage, and maintain geographic data. The local land development, engineering, and surveying communities have also embraced digital technologies in their own fields. Because development plans are now created using computer aided design and drafting (CAD) software, it is the goal of the City of Fairfax to utilize these techniques to enhance and expedite the design and plan review process within the City and help maintain a digital database of geographic information. For this, requirements have been implemented to allow CAD and other GIS data to be integrated into the City's GIS while preserving the referential and positional accuracy of the original measurements.

#### **Requirements:**

- 1. Data *must* be in DXF format if from AutoCAD, Microstation or another Cad software program, or ESRI Shapefile if from a GIS software program. (DWG and DGN files will *not* be accepted)
- **2.** Data *must* be projected in Virginia State Plane North, NAD 83 Harn. Data *must* fit in seamlessly with City's GIS data layers.
- **3.** Data *must* be separated into *individual* thematic layers and labeled accordingly.

## **<u>Layers Required</u>** (project dependant)

**Building footprints** 

Parking configuration (including islands, no parking stripes) (Commercial)

Driveways (Residential)

Street Centerlines

Parcel / Property boundaries

Utility Lines (sewer, water, electric, gas, fiber optic cable, phone lines, etc.)

Sidewalks

**Easements** 

Landscaping/tree cover (post development)

Topography (to include vertical datum reference in National Geodetic Vertical Datum of 1929 (NGVD29)).

Minimum of four (4) digital grid tics in NAD 83 Virginia State Plane Coordinate System. Right-of-way

Stormwater lines, structures, outlets

Best Management Practice (BMP) (include polygon showing drainage area to each BMP)

**4.** A text file or word document *must* accompany the digital data with a description of each layer. POCs for electronic plat submission requirements are with Maurice Rioux, GIS Manager with the Dept. of Information Technology at <a href="maurice.rioux@fairfaxva.gov">maurice.rioux@fairfaxva.gov</a>

This information is also available on the City's website <a href="www.fairfaxva.gov/it/gis.asp">www.fairfaxva.gov/it/gis.asp</a>